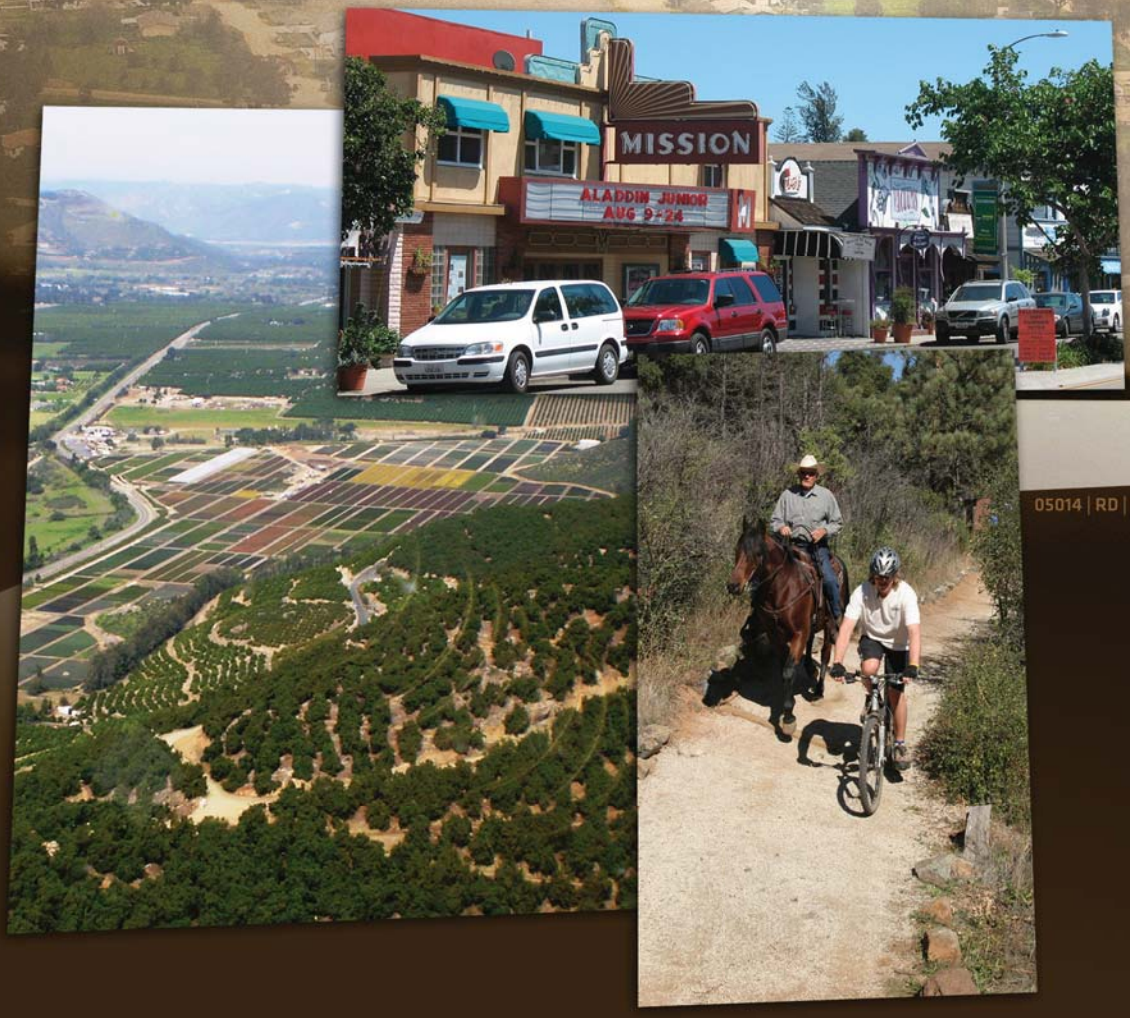
# San Diego County General Plan Update

# Final Environmental Impact Report

**EIR # 02-ZA-001 | SCH # 2002111067 | Program EIR**




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**August 2011**

**County of San Diego | Dept. of Planning and Land Use**
**5201 Ruffin Road, Suite B | San Diego, California 92123**

# DRAFT FINAL ENVIRONMENTAL IMPACT REPORT

**San Diego County General Plan Update**
**DPLU Environmental Log No. 02-ZA-001**
**State Clearinghouse (SCH) #2002111067**

**VOLUME I**
**ENVIRONMENTAL IMPACT REPORT**

**Lead Agency:**

**County of San Diego**
**Department of Planning and Land Use**
**5201 Ruffin Road, Suite B**
**San Diego, CA 92123**
**Contact: Devon Muto, Chief of Advanced Planning**

**August 2011**

# TABLE OF CONTENTS

## VOLUME I – ENVIRONMENTAL IMPACT REPORT

**ACRONYMS AND ABBREVIATIONS** ..... xiii

**SUMMARY** ..... S-1
- S.1 Overview ..... S-1
- S.2 Project Description ..... S-2
- S.3 Project Objectives ..... S-3
- S.4 Impact Summary ..... S-3
- S.5 Alternatives to the General Plan Update ..... S-3
- S.6 Areas of Controversy and Issues to be Resolved by the Decision Making Body ..... S-4

**CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING** ..... 1-1
- 1.1 Introduction ..... 1-1
- 1.2 State Requirements ..... 1-1
- 1.3 Project Objectives ..... 1-1
- 1.4 Regional Location and Characteristics ..... 1-2
- 1.5 Environmental Setting ..... 1-4
- 1.6 Summary of Proposed Project Components ..... 1-4
- 1.7 Update to Existing General Plan ..... 1-5
- 1.8 Other Project Components ..... 1-13
- 1.9 Purpose and Use of an EIR ..... 1-17
- 1.10 EIR Impact Analysis Methodology ..... 1-20
- 1.11 Project Consistency with Applicable Plans ..... 1-21
- 1.12 Background Information ..... 1-21
- 1.13 County Population Forecast Model and Projected Growth ..... 1-27
- 1.14 Cumulative Projects ..... 1-30
- 1.15 Organization of the EIR ..... 1-39

**CHAPTER 2.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT** ..... 2.0-1
- 2.1 Aesthetics ..... 2.1-1
  - 2.1.1 Existing Conditions ..... 2.1-1
  - 2.1.2 Regulatory Framework ..... 2.1-27
  - 2.1.3 Analysis of Project Impacts and Determination of Significance ..... 2.1-32
  - 2.1.4 Cumulative Impacts ..... 2.1-53
  - 2.1.5 Significance of Impact Prior to Mitigation ..... 2.1-56
  - 2.1.6 Mitigation ..... 2.1-56
  - 2.1.7 Conclusion ..... 2.1-64
- 2.2 Agricultural Resources ..... 2.2-1
  - 2.2.1 Existing Conditions ..... 2.2-1
  - 2.2.2 Regulatory Framework ..... 2.2-9
  - 2.2.3 Analysis of Project Effects and Determination of Significance ..... 2.2-12
  - 2.2.4 Cumulative Impacts ..... 2.2-27
  - 2.2.5 Significance of Impact Prior to Mitigation ..... 2.2-28
  - 2.2.6 Mitigation ..... 2.2-29
  - 2.2.7 Conclusion ..... 2.2-33

2.3 Air Quality ..... 2.3-1
2.3.1 Existing Conditions ..... 2.3-1
2.3.2 Regulatory Framework ..... 2.3-8
2.3.3 Analysis of Project Impacts and Determination of Significance ..... 2.3-13
2.3.4 Cumulative Impacts ..... 2.3-28
2.3.5 Significance of Impact Prior to Mitigation ..... 2.3-31
2.3.6 Mitigation ..... 2.3-31
2.3.7 Conclusion ..... 2.3-37
2.4 Biological Resources ..... 2.4-1
2.4.1 Existing Conditions ..... 2.4-1
2.4.2 Regulatory Framework ..... 2.4-13
2.4.3 Analysis of Project Impacts and Determination of Significance ..... 2.4-19
2.4.4 Cumulative Impact Analysis ..... 2.4-34
2.4.5 Significance of Impact Prior to Mitigation ..... 2.4-37
2.4.6 Mitigation ..... 2.4-37
2.4.7 Conclusion ..... 2.4-43
2.5 Cultural and Paleontological Resources ..... 2.5-1
2.5.1 Existing Conditions ..... 2.5-1
2.5.2 Regulatory Framework ..... 2.5-16
2.5.3 Analysis of Project Impacts and Determination of Significance ..... 2.5-22
2.5.4 Cumulative Impacts ..... 2.5-34
2.5.5 Significance of Impact Prior to Mitigation ..... 2.5-37
2.5.6 Mitigation ..... 2.5-37
2.5.7 Conclusion ..... 2.5-40
2.6 Geology and Soils ..... 2.6-1
2.6.1 Existing Conditions ..... 2.6-1
2.6.2 Regulatory Framework ..... 2.6-14
2.6.3 Analysis of Project Impacts and Determination of Significance ..... 2.6-17
2.6.4 Cumulative Impacts ..... 2.6-32
2.6.5 Significance of Impacts Prior to Mitigation ..... 2.6-34
2.6.6 Mitigation ..... 2.6-34
2.6.7 Conclusion ..... 2.6-35
2.7 Hazards and Hazardous Materials ..... 2.7-1
2.7.1 Existing Conditions ..... 2.7-1
2.7.2 Regulatory Framework ..... 2.7-20
2.7.3 Analysis of Project Impacts and Determination of Significance ..... 2.7-28
2.7.4 Cumulative Impacts ..... 2.7-49
2.7.5 Significance of Impact Prior to Mitigation ..... 2.7-54
2.7.6 Mitigation ..... 2.7-54
2.7.7 Conclusion ..... 2.7-60
2.8 Hydrology and Water Quality ..... 2.8-1
2.8.1 Existing Conditions ..... 2.8-1
2.8.2 Regulatory Framework ..... 2.8-25
2.8.3 Analysis of Project Effects and Determination of Significance ..... 2.8-30
2.8.4 Cumulative Impact Analysis ..... 2.8-58
2.8.5 Significance of Impact Prior to Mitigation ..... 2.8-62
2.8.6 Mitigation ..... 2.8-62
2.8.7 Conclusion ..... 2.8-74

2.9 Land Use ..... 2.9-1
2.9.1 Existing Conditions ..... 2.9-1
2.9.2 Regulatory Framework ..... 2.9-21
2.9.3 Analysis of Project Impacts and Determination of Significance ..... 2.9-27
2.9.4 Cumulative Impacts ..... 2.9-36
2.9.5 Significance of Impact Prior to Mitigation ..... 2.9-38
2.9.6 Mitigation ..... 2.9-37
2.9.7 Conclusion ..... 2.9-40
2.10 Mineral Resources ..... 2.10-1
2.10.1 Existing Conditions ..... 2.10-1
2.10.2 Regulatory Framework ..... 2.10-12
2.10.3 Analysis of Project Impacts and Determination of Significance ..... 2.10-13
2.10.4 Cumulative Impacts ..... 2.10-18
2.10.5 Significance of Impact Prior to Mitigation ..... 2.10-19
2.10.6 Mitigation ..... 2.10-19
2.10.7 Conclusion ..... 2.10-22
2.11 Noise ..... 2.11-1
2.11.1 Existing Conditions ..... 2.11-1
2.11.2 Regulatory Framework ..... 2.11-9
2.11.3 Analysis of Project Impacts and Determination of Significance ..... 2.11-14
2.11.4 Cumulative Impacts ..... 2.11-34
2.11.5 Significance of Impact Prior to Mitigation ..... 2.11-37
2.11.6 Mitigation ..... 2.11-38
2.11.7 Conclusion ..... 2.11-45
2.12 Population and Housing ..... 2.12-1
2.12.1 Existing Conditions ..... 2.12-1
2.12.2 Regulatory Framework ..... 2.12-9
2.12.3 Analysis of Project Effects and Determination of Significance ..... 2.12-13
2.12.4 Cumulative Impacts ..... 2.12-18
2.12.5 Significance of Impact Prior to Mitigation ..... 2.12-20
2.12.6 Mitigation ..... 2.12-20
2.12.7 Conclusion ..... 2.12-21
2.13 Public Services ..... 2.13-1
2.13.1 Existing Conditions ..... 2.13-1
2.13.2 Regulatory Framework ..... 2.13-13
2.13.3 Analysis of Project Effects and Determination of Significance ..... 2.13-15
2.13.4 Cumulative Impacts ..... 2.13-25
2.13.5 Significance of Impact Prior to Mitigation ..... 2.13-28
2.13.6 Mitigation ..... 2.13-28
2.13.7 Conclusion ..... 2.13-34
2.14 Recreation ..... 2.14-1
2.14.1 Existing Conditions ..... 2.14-1
2.14.2 Regulatory Framework ..... 2.14-8
2.14.3 Analysis of Project Impacts and Determination of Significance ..... 2.14-15
2.14.4 Cumulative Impact Analysis ..... 2.14-21
2.14.5 Significance of Impact Prior to Mitigation ..... 2.14-22
2.14.6 Mitigation ..... 2.14-23
2.14.7 Conclusion ..... 2.14-28

2.15 Transportation and Traffic ..... 2.15-1
2.15.1 Existing Conditions ..... 2.15-1
2.15.2 Regulatory Framework ..... 2.15-12
2.15.3 Analysis of Project Impacts and Determination of Significance ..... 2.15-17
2.15.4 Cumulative Impacts ..... 2.15-39
2.15.5 Significance of Impact Prior to Mitigation ..... 2.15-42
2.15.6 Mitigation ..... 2.15-42
2.15.7 Conclusion ..... 2.15-56
2.16 Utilities and Service Systems ..... 2.16-1
2.16.1 Existing Conditions ..... 2.16-1
2.16.2 Regulatory Framework ..... 2.16-31
2.16.3 Analysis of Project Effects and Determination of Significance ..... 2.16-38
2.16.4 Cumulative Impacts ..... 2.16-64
2.16.5 Significance of Impact Prior to Mitigation ..... 2.16-67
2.16.6 Mitigation ..... 2.16-67
2.16.7 Conclusion ..... 2.16-78
2.17 Global Climate Change ..... 2.17-1
2.17.1 Existing Conditions ..... 2.17-1
2.17.2 Regulatory Framework ..... 2.17-6
2.17.3 Analysis of Project Effects and Determination of Significance ..... 2.17-12
2.17.4 Cumulative Impacts ..... 2.17-27
2.17.5 Significance of Impact Prior to Mitigation ..... 2.17-28
2.17.6 Mitigation ..... 2.17-28
2.17.7 Conclusion ..... 2.17-33

CHAPTER 3.0 OTHER CEQA CONSIDERATIONS ..... 3-1
3.1 Growth Inducing Impacts ..... 3-1
3.2 Significant Irreversible Environmental Changes ..... 3-7
3.3 Significant and Unavoidable Impacts ..... 3-8

CHAPTER 4.0 PROJECT ALTERNATIVES ..... 4-1
4.1 Rationale for Alternative Selection ..... 4-1
4.2 Analysis of the Hybrid Map Alternative ..... 4-8
4.3 Analysis of the Draft Land Use Map Alternative ..... 4-36
4.4 Analysis of the Environmentally Superior Map Alternative ..... 4-46
4.5 Analysis of the No Project Alternative ..... 4-56

CHAPTER 5.0 REFERENCES ..... 5-1

CHAPTER 6.0 PREPARERS AND PERSONS CONTACTED ..... 6-1
6.1 EIR Preparers ..... 6-1
6.2 Geographic Information Systems EIR Data and Figures Preparers ..... 6-2
6.3 County of San Diego EIR Reviewers ..... 6-2
6.4 EIR Background Reports/Information ..... 6-4

CHAPTER 7.0 PROPOSED GENERAL PLAN UPDATE POLICIES AND MITIGATION MEASURES ..... 7-1
7.1 Proposed General Plan Update Policies ..... 7-1
7.2 Mitigation Measures ..... 7-50

## LIST OF TABLES


S-1 Summary of Project Impacts ..... S-7
S-2 Summary of Analysis for Alternatives to the General Plan Update ..... S-21
1-1 Land Use Designation Distribution for General Plan Update ..... 1-42
1-2 Native American Tribes in the County of San Diego ..... 1-44
1-3 Anticipated Increase in Housing Units 2008 - Build-Out Under General Plan Update ..... 1-45
1-4 Anticipated Increase in Population 2008 - Build-Out Under General Plan Update ..... 1-46
1-5 Regional Growth Projections ..... 1-47
1-6 Statewide Population Projections ..... 1-48
1-7 Proposed Projects in Mexico ..... 1-49
1-8 2030 San Diego Regional Transportation Plan Projects ..... 1-50
1-9 CEC List of Regional Energy Projects ..... 1-52
1-10 CPUC Current Projects ..... 1-53
1-11 Projects Not Included in the Proposed General Plan Update Land Use Map ..... 1-54
1-12 Projects on Tribal Lands in San Diego County ..... 1-58
1-13 Environmental Baselines Used in the DEIR ..... 1-59
2.1-1 Eligible State Scenic Highways in Unincorporated San Diego County ..... 2.1-66
2.1-2 County Scenic Highway System Priority List ..... 2.1-66
2.1-3 Proposed Land Uses within Light Pollution Zone A ..... 2.1-68
2.2-1 San Diego County Farmland Mapping and Monitoring Program Acreages ..... 2.2-35
2.2-2 FMMP Farmland Categories ..... 2.2-36
2.2-3 Existing Agricultural Resource Distribution in the County ..... 2.2-37
2.2-4 County Agricultural Resource Categories ..... 2.2-38
2.2-5 Economics of Agricultural Crops in San Diego County ..... 2.2-38
2.2-6 Ten Year Comparison of Major Crops in San Diego County ..... 2.2-39
2.2-7 Number of Farms by Sales Volume in San Diego County ..... 2.2-39
2.2-8 Top Ten Organically Produced Crops in San Diego County ..... 2.2-39
2.2-9 Existing Agricultural Zones, Designations, Preserves and Contracts in San Diego County ..... 2.2-40
2.2-10 Existing Agricultural Preserves and Williamson Act Contract Lands ..... 2.2-41
2.2-11 Proposed Land Uses in Areas of Agricultural Resources ..... 2.2-42
2.2-12 Proposed General Plan Update Land Use Designations in Agricultural Zoning Areas ..... 2.2-43
2.3-1 Air Quality Descriptors ..... 2.3-39
2.3-2 Federal and State Ambient Air Quality Standards ..... 2.3-40
2.3-3 Criteria Pollutants and Pollutants of Concern, Sources, Recognized Health Effects and Controls ..... 2.3-41
2.3-4 Summary of Ambient Background Data – San Diego Air Basin ..... 2.3-44
2.3-5 San Diego County Air Basin Attainment Status by Pollutant ..... 2.3-45
2.3-6 Emissions Inventories ..... 2.3-46
2.3-7 RAQS VOC Control Measures ..... 2.3-46
2.3-8 RAQS NOX Control Measures ..... 2.3-47
2.3-9 General Plan Update Area-wide and Vehicular Emissions ..... 2.3-47
2.3-10 Comparison of Current and Future Vehicular Emissions ..... 2.3-48
2.3-11 Mitigated Area-wide and Vehicular Emissions ..... 2.3-49
2.3-12 Screening-Level Thresholds for Air Quality Impact Analysis ..... 2.3-50
2.3-13 CARB Recommendations on Siting New Sensitive Land Uses ..... 2.3-51
2.3-14 TAC-Emitting Facilities within the SDAB 2007 ..... 2.3-52

## List of Tables (Continued)


2.4-1 Total Habitat Impacts by CPA and Subregion ..... 2.4-45
2.4-2 Countywide Habitat Impacts by Vegetation Community ..... 2.4-46
2.4-3 Total Impacts to Riparian Habitat by CPA or Subregion ..... 2.4-48
2.4-4 Total Impacts to Riparian Vegetation Communities ..... 2.4-49
2.4-5 Natural Vegetation Communities Potentially Containing Federally Protected Wetlands ..... 2.4-50
2.4-6 Potential Impacts to Federally Protected Wetlands by CPA or Subregion ..... 2.4-51
2.5-1 Terminology for Culture History in the San Diego Area ..... 2.5-42
2.5-2 Significant Historical Sites ..... 2.5-43
2.5-3 Fossils in the Coastal Plain Region ..... 2.5-46
2.5-4 Fossils in the Peninsular Ranges Region ..... 2.5-47
2.5-5 Fossils in the Salton Trough Region ..... 2.5-47
2.5-6 Formations with a High or Moderate Potential to Contain Paleontological Resources in San Diego County ..... 2.5-48
2.6-1 Unique Geologic Features in Unincorporated San Diego County ..... 2.6-37
2.6-2 Modified Mercalli Intensity Scale ..... 2.6-39
2.6-3 Comparison of Richter Magnitude and Modified Mercalli Intensity ..... 2.6-40
2.6-4 Active Faults in and Adjacent to San Diego County ..... 2.6-40
2.6-5 Alquist-Priolo Designated Earthquake Faults in San Diego County ..... 2.6-41
2.6-6 Hydric Soils in San Diego County ..... 2.6-41
2.6-7 Clay Soils in San Diego County ..... 2.6-41
2.6-8 Inventory of Unreinforced Masonry Buildings in San Diego County ..... 2.6-42
2.6-9 Land Use Designations within Fault Zones ..... 2.6-42
2.6-10 Land Use Designations within Fault Zones by CPA or Subregion ..... 2.6-43
2.6-11 Proposed Land Use Designation in Areas with Potential Liquefaction Hazards ..... 2.6-44
2.6-12 Proposed Land Use Designations in Areas with Potential Liquefaction Hazards by Community ..... 2.6-45
2.6-13 Proposed Land Use Designations in Areas with Potential Expansive Soils Hazard ..... 2.6-50
2.6-14 Proposed Land Use Designations in Areas with Potential Expansive Soils Hazard by Community ..... 2.6-51
2.7-1 Land Uses Surrounding Active Landfills ..... 2.7-64
2.7-2 Registered “Active” Hazardous Waste Transporters in Unincorporated Areas of San Diego County ..... 2.7-65
2.7-3 Hazardous Waste Transfer Facility Characteristics ..... 2.7-65
2.7-4 San Diego County-Operated Airports ..... 2.7-66
2.7-5 Private Airports Located in Unincorporated San Diego County ..... 2.7-67
2.7-6 Safety Zone Aircraft Accident Risk Characteristics ..... 2.7-68
2.7-7 Existing Wildland Urban Interface Fire Threat in Acreage ..... 2.7-69
2.7-8 History of Major Wildfires in San Diego County (1996-2007) ..... 2.7-70
2.7-9 Land Uses within One-Quarter Mile of School Facilities ..... 2.7-71
2.7-10 Sensitive Receptors within One-Quarter Mile of Sites Pursuant to Government Code 65962.5 ..... 2.7-72
2.7-11 Acreages Proposed Within Wildland Urban Interface Areas under the Proposed General Plan Update ..... 2.7-73
2.8-1 Water Bodies Identified as Impaired under the Clean Water Act ..... 2.8-77
2.8-2 Historic Flood Occurrences in San Diego County ..... 2.8-79
2.8-3 Tsunami Heights in San Diego ..... 2.8-80
2.8-4 Dam Inundation Areas Affecting the Unincorporated County ..... 2.8-80
2.8-5 Unincorporated Communities with Areas in 100-year Floodplains ..... 2.8-82
2.8-6 Groundwater Basins Experiencing Significant Impacts in Storage ..... 2.8-83
2.8-7 Land Use Designations within Flood Areas under the Proposed General Plan Update ..... 2.8-83

## List of Tables (Continued)


2.8-8 Land Use Designations within Dam Inundation Areas under the Proposed General Plan Update ..... 2.8-84
2.9-1 Existing Land Use Types ..... 2.9-42
2.9-2 San Diego County Land Use Distribution Totals ..... 2.9-45
2.9-3 FCI Acreage Totals by Community Planning Area ..... 2.9-46
2.9-4 Proposed Road Improvements by Community ..... 2.9-46
2.9-5 CTMP Policies and Corresponding General Plan Update Policies ..... 2.9-47
2.9-6 Proposed Sphere of Influence Land Use Differences ..... 2.9-48
2.10-1 Types of Minerals Mined in San Diego County ..... 2.10-24
2.10-2 Extraction Sites Under the Jurisdiction of the County of San Diego ..... 2.10-24
2.10-3 Gem and Specimen Mineral Mines Active in San Diego County as of July 2006 ..... 2.10-26
2.10-4 Aggregate Resource Sectors ..... 2.10-27
2.10-5 Lands Classified as MRZ-2 Since 1982 ..... 2.10-29
2.10-6 Proposed Land Uses in the Unincorporated County in Areas Designated MRZ-2 ..... 2.10-29
2.10-7 Proposed Land Uses in Areas Designated MRZ-2 by CPA and Subregion ..... 2.10-30
2.10-8 Proposed Land Uses in the Unincorporated County in Areas Designated MRZ-3 ..... 2.10-32
2.11-1 Typical A-Weighted Noise Levels ..... 2.11-47
2.11-2 Current Public Airport Operations in the Unincorporated County ..... 2.11-47
2.11-3 Typical Extraction Equipment Noise Levels ..... 2.11-48
2.11-4 Noise Complaints by Community ..... 2.11-49
2.11-5 Summary of Community Noise Levels ..... 2.11-49
2.11-6 Summary of Noise Levels for 24-Hour Monitoring Sites ..... 2.11-50
2.11-7 Noise Compatibility Criteria Alternatives ..... 2.11-50
2.11-8 Adjustment Factors for Obtaining Normalized CNEL ..... 2.11-51
2.11-9 Noise Compatibility Guidelines ..... 2.11-52
2.11-10 Noise Standards ..... 2.11-53
2.11-11 San Diego County Noise Ordinance Exterior Noise Standards ..... 2.11-54
2.11-12 Land Uses within the Roadway Contours with the Potential to be Exposed to Noise Levels Exceeding Noise Compatibility Guidelines ..... 2.11-55
2.11-13 Designated Noise Sensitive Land Uses within the 60 dBA (CNEL) Railroad Contour ..... 2.11-55
2.11-14 Ground-borne Vibration and Noise Standards ..... 2.11-56
2.11-15 Typical Levels of Groundborne Vibration ..... 2.11-57
2.11-16 Increases in Noise Levels along Mobility Element Roadways ..... 2.11-58
2.11-17 Roadway Segments New Roads (not in Existing Conditions) ..... 2.11-58
2.11-18 Typical Construction Equipment Noise Levels ..... 2.11-59
2.11-19 Designated Noise Sensitive Land Uses within the 60 dBA Annual CNEL Noise Contour of a Public Use Airport ..... 2.11-59
2.11-20 Designated Noise Sensitive Land Uses within Two Miles of a Private Airstrip ..... 2.11-60
2.12-1 Population Trends: 1990-2007 ..... 2.12-22
2.12-2 SANDAG Population Forecast: 2000-2030 ..... 2.12-23
2.12-3 Household Characteristics in the Unincorporated Area: 1990-2000 ..... 2.12-24
2.12-4 Type of Occupancy: 2000 ..... 2.12-25
2.12-5 Household Income: 2000 ..... 2.12-26
2.12-6 Single-Parent Household Characteristics: 2000 ..... 2.12-26
2.12-7 Housing Type: 2008 ..... 2.12-27
2.12-8 Housing Unit Trends: 1990-2010 ..... 2.12-27
2.12-9 Median Home Values in Unincorporated Area: 2005-2007 ..... 2.12-28
2.12-10 Manufactured/Mobile Home Value: November 2006 ..... 2.12-28
2.12-11 Average Rental Rate by Type in Unincorporated Area: March through May 2008 ..... 2.12-29

## List of Tables (Continued)


2.12-12 Age of Housing: 2000 ..... 2.12-29
2.12-13 Overcrowding by Region: 2000 ..... 2.12-29
2.12-14 Cost Burden by Household Type and Income: 2000 ..... 2.12-30
2.12-15 Employment by Industry: 2000 ..... 2.12-30
2.13-1 Fire Protection Agencies Serving Unincorporated San Diego County ..... 2.13-37
2.13-2 Fire Protection Agencies Existing and Future Housing and Population Forecast ..... 2.13-38
2.13-3 Emergency Response Fire Travel Times ..... 2.13-39
2.13-4 Fire Response Time by Road Miles Covered ..... 2.13-40
2.13-5 SDSD Law Enforcement Command Areas ..... 2.13-41
2.13-6 SDSD Beat Districts: Existing and Future Housing and Population Forecast ..... 2.13-42
2.13-7 2008 SDSD Average Adjusted Response Times by Area ..... 2.13-43
2.13-8 School Districts Serving San Diego County ..... 2.13-44
2.13-9 School Enrollment for Districts Serving the Unincorporated County ..... 2.13-47
2.13-10 San Diego School Districts: Existing and Future Housing and Population Forecast ..... 2.13-48
2.13-11 Major Academic Institutions and Professional Schools Serving Unincorporated County Residents ..... 2.13-49
2.13-12 Existing Library Branches Facility Requirements ..... 2.13-50
2.13-13 San Diego Library Districts: Existing and Future Housing and Population Forecast ..... 2.13-51
2.13-14 Table of Travel Time Standards for Fire Protection ..... 2.13-52
2.13-15 San Diego County Sheriff's Department 2020 Law Enforcement Facilities Master Plan ..... 2.13-53
2.13-16 Projected San Diego County School Enrollment by School Year ..... 2.13-53
2.14-1 Existing Local Parks and Recreational Facilities ..... 2.14-29
2.14-2 Regional Parks ..... 2.14-31
2.14-3 County-Owned Preserves ..... 2.14-32
2.14-4 Existing Local Park and Recreation Needs ..... 2.14-33
2.15-1 Level of Service Definitions ..... 2.15-59
2.15-2 Caltrans District 11 State Highway Segment LOS Definitions ..... 2.15-59
2.15-3 County of San Diego Current Roadway Segment Daily Capacity and LOS Standards ..... 2.15-60
2.15-4 Current County Public Roadway Classifications ..... 2.15-61
2.15-5 Existing Conditions Roadway Lane Miles by Subregion and Community Planning Area ..... 2.15-62
2.15-6 Existing Conditions Roadway Lane Miles by LOS ..... 2.15-63
2.15-7 Vehicle Miles Traveled and Average Daily Traffic Existing Conditions (2007) vs. Proposed Project (2030) ..... 2.15-64
2.15-8 Rail Lines in San Diego County ..... 2.15-65
2.15-9 SANTEC/ITE Guidelines Circulation Element Roadway Classifications, Capacity and LOS Standards ..... 2.15-65
2.15-10 City of Chula Vista Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-66
2.15-11 City of Encinitas Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-66
2.15-12 City of Escondido Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-66
2.15-13 City of Oceanside Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-67
2.15-14 City of San Marcos Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-67

## List of Tables (Continued)


2.15-15 City of Vista Circulation Element Roadway Classifications Capacity and LOS Standards ..... 2.15-67
2.15-16 Existing Conditions Roadway LOS by Jurisdiction ..... 2.15-68
2.15-17 Interregional/International Crossings in the Unincorporated County ..... 2.15-73
2.15-18 Proposed Project Roadway Lane Miles by Community ..... 2.15-74
2.15-19 Proposed Roadway Segment Daily Capacity and LOS Standards ..... 2.15-75
2.15-20 Proposed Roadway Lane Miles by LOS ..... 2.15-76
2.15-21 Proposed Project Deficient Facilities by Community ..... 2.15-77
2.15-22 Sphere of Influence Comparison of Mobility Element Road Classifications for the Unincorporated County to Adjacent Cities ..... 2.15-84
2.15-23 SANTEC/ITE Measures of Significant Project Traffic Impacts ..... 2.15-90
2.15-24 Significant Traffic Impacts to Adjacent Cities Resulting from the Proposed Project ..... 2.15-90
2.15-25 Cumulative Traffic Map Roadway Lane Miles by Community ..... 2.15-92
2.15-26 Cumulative Traffic Map Roadway Lane Miles by LOS ..... 2.15-93
2.15-27 Cumulative Significant Traffic Impacts Existing Conditions vs. Existing General Plans ..... 2.15-94
2.15-28 Criteria for Accepting LOS E/F Roads ..... 2.15-96
2.16-1 SDCWA Member Water Districts Existing and Future Housing and Population ..... 2.16-81
2.16-2 Groundwater Dependent Water Districts Existing and Future Housing and Population ..... 2.16-82
2.16-3 Historical Borrego Valley Aquifer Water Demand ..... 2.16-82
2.16-4 Wastewater Districts Existing and Future Housing and Population ..... 2.16-83
2.16-5 San Diego County Landfill Capacity Information ..... 2.16-84
2.16-6 Solid Waste Transfer Stations Serving Unincorporated San Diego County ..... 2.16-84
2.16-7 Construction Demolition and Inert Processing Facilities Serving Unincorporated San Diego County ..... 2.16-85
2.16-8 Power Plants Located in San Diego County ..... 2.16-85
2.16-9 Summary of Potentially Significant Environmental Effects from Implementation of SDCWA Water Supply Projects ..... 2.16-87
2.16-10 Groundwater Dependent Water Districts' Water Supply Sources ..... 2.16-89
2.16-11 San Diego County Physical Landfill Capacity Projection ..... 2.16-90
2.17-1 Global Warming Potentials and Atmospheric Lifetimes of Basic GHGs ..... 2.17-35
2.17-2 State of California GHG Emissions by Sectors in 2004 ..... 2.17-35
2.17-3 County of San Diego GHG Emissions by Category ..... 2.17-36
2.17-4 County of San Diego Government Operational GHG Emissions ..... 2.17-36
2.17-5 San Diego County Population Estimates ..... 2.17-36
2.17-6 Community GHG Emissions for Unincorporated County ..... 2.17-37
2.17-7 Combined Operation and Community GHG Emissions for Unincorporated County ..... 2.17-37
2.17-8 County Operation Estimated GHG Emissions Reductions ..... 2.17-37
2.17-9 Community Projected GHG Emissions Reductions for Unincorporated County ..... 2.17-38
4-1 Comparison of Alternatives – Countywide Land Use Distribution in Acres ..... 4-65
4-2 Comparison of Alternatives – CPA and Subregion Land Use Distribution in Acres ..... 4-66
4-3 Comparison of Alternatives – Environmental Impacts ..... 4-76
4-4 Comparison of Alternatives – Direct Conversion of Agricultural Resources ..... 4-79
4-5 Comparison of Alternatives – Proposed Land Uses within Flood Areas ..... 4-80
4-6 Comparison of Alternatives – Projected Housing within the San Diego County Water Authority Service Area ..... 4-80
4-7 Comparison of Alternatives – Future Housing Units by CPA and Subregion ..... 4-81
4-8 Comparison of Alternatives – Habitat Impacts ..... 4-82

## LIST OF FIGURES


1-1 Regional Location Map ..... 1-62
1-2 Community and Subregional Planning Areas ..... 1-63
1-3 Proposed Land Use Map ..... 1-64
1-4 North County Proposed Mobility Element Roadways ..... 1-65
1-5 East County Proposed Mobility Element Roadways ..... 1-66
1-6 Backcountry Proposed Mobility Element Roadways ..... 1-67
2.1-1 San Diego County MSCP ..... 2.1-69
2.1-2 San Diego County State Scenic Highways ..... 2.1-70
2.1-3 Photo Locations 1 and 2 ..... 2.1-71
2.1-4 Photo Locations 3 and 4 ..... 2.1-72
2.1-5 Photo Locations 5 and 6 ..... 2.1-73
2.1-6 Photo Locations 7 and 8 ..... 2.1-74
2.1-7 Photo Locations 9 and 10 ..... 2.1-75
2.1-8 Zone A Surrounding Palomar and Mount Laguna Observatories ..... 2.1-76
2.2-1 Farmland Mapping and Monitoring Program Lands ..... 2.2-45
2.2-2 County Identified Agricultural Lands ..... 2.2-46
2.2-3 Prime Agricultural Soils ..... 2.2-47
2.2-4 2007 Major Crop Categories from San Diego County ..... 2.2-48
2.2-5 Top Ten Crops for 2007 ..... 2.2-49
2.2-6 Agricultural Preserves and Williamson Act Contract Lands ..... 2.2-50
2.2-7 Agricultural Zoning Map ..... 2.2-51
2.3-1 San Diego Air Quality Monitoring Stations and Annual Average $PM_{10}$ Emissions ..... 2.3-53
2.4-1 Aggregated Vegetation Map of San Diego County ..... 2.4-53
2.4-2 Adopted and Draft MSCP Core and Linkage Areas ..... 2.4-54
2.4-3 Estimated Vegetation Impact ..... 2.4-55
2.5-1 Geologic Time Scale ..... 2.5-49
2.5-2 Historic Resources and Julian Historic District ..... 2.5-50
2.5-3 Paleontological Sensitivity Map ..... 2.5-51
2.6-1 Mapped Faults ..... 2.6-57
2.6-2 Alquist-Priolo and County Special Study Fault Zones ..... 2.6-58
2.6-3 Potential Liquefaction Areas ..... 2.6-59
2.6-4 Landslide Susceptibility Areas ..... 2.6-60
2.6-5 Potential Expansive Soil Areas ..... 2.6-61
2.7-1 UXO/FUDS Locations ..... 2.7-75
2.7-2 Location of Active Landfills, Inactive Landfills and Burnsites within the County ..... 2.7-76
2.7-3 Military, Public and Private Airports ..... 2.7-77
2.7-4 Typical Layout of Airport Safety Zones ..... 2.7-78
2.7-5 County Fire Hazard Severity Zones for FRA, SRA and LRA ..... 2.7-79
2.7-6 Wildland/Urban Interface Areas ..... 2.7-80
2.7-7 Wildland Fire History (1910-2007) ..... 2.7-81
2.8-1 Aquifer Types within the County ..... 2.8-85
2.8-2 Potential for Low Well Yield ..... 2.8-86
2.8-3 Potential Impacts from Large Quantity/Clustered Groundwater Users ..... 2.8-87
2.8-4 Surface Water ..... 2.8-88
2.8-5 County Hydrologic Units ..... 2.8-89
2.8-6 Potential Water Quality Impacts ..... 2.8-90
2.8-7 Dam Inundation Areas ..... 2.8-91
2.8-8 County Floodplains and Floodways ..... 2.8-92
2.8-9 Long-Term Groundwater Availability Results ..... 2.8-93

## List of Figures (Continued)


2.9-1 Existing Land Uses ..... 2.9-49
2.9-2 Countywide Spheres of Influence ..... 2.9-50
2.9-3 City of El Cajon Sphere of Influence ..... 2.9-51
2.9-4 City of Escondido Sphere of Influence ..... 2.9-52
2.9-5 City of San Marcos Sphere of Influence ..... 2.9-53
2.9-6 City of Vista Sphere of Influence ..... 2.9-54
2.10-1 San Diego County Geologic Environments ..... 2.10-33
2.10-2 Existing Mineral Resources in San Diego County ..... 2.10-34
2.10-3 San Diego County Mineral Resource Zones ..... 2.10-35
2.11-1 Community Noise Survey Locations ..... 2.11-61
2.11-2 Existing Noise Contours ..... 2.11-62
2.11-3 Future Noise Contours ..... 2.11-63
2.13-1 Fire Protection Organizations ..... 2.13-55
2.13-2 Unincorporated Areas with No Fire Protection ..... 2.13-56
2.13-3 Law Enforcement Facilities and Command Areas ..... 2.13-57
2.13-4 Elementary School Districts ..... 2.13-58
2.13-5 High School Districts ..... 2.13-59
2.14-1 Existing Parks ..... 2.14-35
2.14-2 Regional Trails Map ..... 2.14-36
2.15-1 Existing North County Major Roadways ..... 2.15-97
2.15-2 Existing East County Major Roadways ..... 2.15-98
2.15-3 Existing Backcountry Major Roadways ..... 2.15-99
2.15-4 Transit Agency Service Areas ..... 2.15-100
2.15-5 Bus and Rail Service for the Unincorporated County ..... 2.15-101
2.15-6 San Diego County Rail Road Corridors ..... 2.15-102
2.15-7 Bike and Pedestrian Routes within the Unincorporated County ..... 2.15-103
2.16-1 Water Serving District Boundaries ..... 2.16-91
2.16-2 Wastewater District Boundaries and Facilities ..... 2.16-92
2.16-3 Annual Disposal Projections for Unincorporated Communities and the San Diego County Region ..... 2.16-93
4-1 Hybrid Map Alternative ..... 4-85
4-2 Draft Land Use Map Alternative ..... 4-86
4-3 Environmentally Superior Map Alternative ..... 4-87
4-4 No Project Alternative ..... 4-88



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## VOLUME II – TECHNICAL APPENDICES

Appendix A NOP, Comments Received on the NOP, and Materials from the Scoping Meeting

Appendix B Air Quality Technical Report

Appendix C Biological Resources Tables

Appendix D Groundwater Study

Appendix E Proposed Road Construction/Widening Table

Appendix F Noise Technical Report

Appendix G Traffic and Circulation Assessment

Appendix H Traffic Impacts to Adjacent City Jurisdiction Report

Appendix I Rationale for Accepting Roadways with Level of Service E/F

Appendix J Single Year, Normal-Year and Multiple Dry Water Year UWMP Supply and Demand Assessments

Appendix K Greenhouse Gas Emissions Inventory

Appendix L Project Alternatives Areas of Difference

Appendix M Environmentally Superior Map Comparison to Referral Map

## VOLUME III – SUMMARY OF CHANGES TO THE DRAFT EIR, COMMENT LETTERS, AND RESPONSES TO COMMENTS ON THE DRAFT EIR

## VOLUME IV – AMENDMENT TO THE EIR, DESCRIPTION AND ANALYSIS OF THE RECOMMENDED PROJECT

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AAQS | ambient air quality standards |
| AASHTO | American Association of State Highway and Transportation Officials |
| AB | Assembly Bill |
| ABDSP | Anza Borrego Desert State Park |
| ACOE | U.S. Army Corps of Engineers |
| ADA | American with Disabilities Act |
| ADT | average daily traffic |
| AF | acre feet |
| AICUZ | Air Installation Compatible Use Zone |
| ALAPCO | Association of Local Air Pollution Control Officials |
| ALS | Advanced Life Support |
| ALUCP | Airport Land Use Compatibility Plan |
| AMI | area median income |
| AMR | American Medical Response |
| AMSL | above mean sea level |
| AP | Alquist-Priolo |
| APCD | Air Pollution Control District |
| API | Academic Performance Index |
| APZ | Accident Potential Zone |
| ASD | Alpine Sanitation District |
| ASFMRA | American Society of Farmland Managers and Rural Appraisers |
| ASTs | aboveground storage tanks |
| ASTREA | Aerial Support to Regional Enforcement Agencies |
| AWM | County of San Diego Department of Agriculture, Weights and Measures |
| | |
| BACT | best available control technology |
| BAU | business as usual |
| BLM | Bureau of Land Management |
| BLS | basic life support |
| BMO | Biological Mitigation Ordinance |
| BMPs | best management practices |
| BNSF | Burlington Northern Santa Fe Railroad |
| BOS | Board of Supervisors |
| BPWG | Bicycle and Pedestrian Working Group |
| BSD | Buena Sanitation District |
| BSPCSD | Borrego Springs Park Community Services District |
| BWD | Borrego Water District |
| | |
| CAA | Federal Clean Air Act |
| CAO | cleanup and abatement order |
| CAAQS | California Ambient Air Quality Standards |
| CACP | clean air & climate protection |

| | |
|---|---|
| CAJPA | California Association of Joint Powers Authorities |
| CalARP | California Accidental Release Prevention |
| Cal EMA | California Emergency Management Agency |
| Cal/EPA | California Environmental Protection Agency |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Caltech | California Institute of Technology |
| Caltrans | California Department of Transportation |
| CARB | California Air Resources Board |
| CAT Report | California Climate Action Team Report |
| CBC | California Building Code |
| CCR | California Code of Regulations |
| CCWD | Canebrake County Water District |
| CDE | California Department of Education |
| CDFG | California Department of Fish and Game |
| CDI | construction, demolition and inert |
| CDMG | California Division of Mines and Geology |
| CDO | cease and desist orders |
| CDOC | California Department of Conservation |
| CEC | California Energy Commission |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFC | County of San Diego Consolidated Fire Code |
| CFCP | California Farmland Conservancy Program |
| CFCs | chlorofluorocarbons |
| CFG | California Department of Fish and Game |
| CFR | Code of Federal Regulations |
| CGR | Carrizo Gorge Railway |
| CHHSLs | California human health screening levels |
| CHL | California Historic Landmark |
| CHR | Colorado Hydrologic Region |
| CIP | capital improvement projects |
| CIWMB | California Integrated Waste Management Board |
| CMP | Congestion Management Program |
| CNDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNG | compressed natural gas |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| CO2e | carbon monoxide equivalent |
| CPA | community planning area |
| CPUC | California Public Utilities Commission |
| CR | County route |
| CRBRWQCB | Colorado River Basin Regional Water Quality Control Board |

| | |
|---|---|
| CRHR | California Register of Historical Resources |
| CSA | County service area |
| CSMP | Comprehensive Species Management Plan |
| CTMP | Community Trails Master Plan |
| CTP | County Trails Program |
| CTSA | Coordinated Transportation Service Agency |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| CWD | Cuyamaca Water District |
| CWSMD | Campo Water and Sewer Maintenance District |
| | |
| °C | degrees Celsius |
| °F | degrees Fahrenheit |
| dB | decibels |
| dBA | units of decibels |
| DCSD | Descanso Community Services District |
| DDWEM | Public Health Division of Drinking Water & Environmental Management |
| DEH | County of San Diego Department of Environmental Health |
| DEH-HIRT | County of San Diego Department of Environmental Health, Hazardous Incident Response Team |
| DEH-HMD | County of San Diego Department of Environmental Health, Hazardous Materials Division |
| DOC | California Department of Conservation |
| DOD | Department of Defense |
| DPLU | County of San Diego Department of Planning and Land Use |
| DPR | County of San Diego Department of Parks and Recreation |
| DPW | County of San Diego Department of Public Works |
| DTSC | California Environmental Protection Agency Department of Toxic Substances Control |
| du | dwelling unit |
| du/acre | dwelling unit per acre |
| DWR | California Department of Water Resources |
| | |
| ECTs | emission control technologies |
| EDD | Employment Development Department |
| EDUs | equivalent dwelling units |
| EIR | Environmental Impact Report |
| EMS | Emergency Medical Service |
| EMTs | Emergency Medical Technicians |
| EPA | U.S. Environmental Protection Agency |
| EPCRA | Emergency Planning Community Right to Know Act |
| ERCs | emission reduction credits |
| ESA | Federal Endangered Species Act |

| | |
|---|---|
| FAA | Federal Aviation Administration |
| FAHJ | fire authority having jurisdiction |
| FAR | floor-area ratio |
| FCC | Federal Communications Commission |
| FCD | County of San Diego Flood Control District |
| FCI | Forest Conservation Initiative |
| FEMA | Federal Emergency Management Agency |
| FHSZ | fire hazard severity zone |
| FHWA | Federal Highway Administration |
| FIRM | Federal Insurance Rate Map |
| FMMP | Farmland Mapping and Monitoring Program |
| FPD | fire protection districts |
| FPP | fire protection plan |
| FPS | facility planning services |
| FPUD | Fallbrook Public Utility District |
| FRA | Federal Railroad Administration |
| FRAP | Fire and Resource Assessment Program |
| FRPP | Farm and Ranch Lands Protection Program |
| FTA | Federal Transit Administration |
| FUDS | formerly used defense sites |
| | |
| GC | Government Code |
| GHG | greenhouse gas |
| GIS | Geographic Information System |
| GMP | Groundwater Management Plan |
| GPA | General Plan Amendment |
| gpd | gallons per day |
| gpm | gallons per minute |
| GWh | gigawatt-hours |
| GWP | global warming potential |
| | |
| H&SC | Health and Safety Code |
| H2S | hydrogen sulfide |
| HA | Hydrologic Area |
| HAPs | Hazardous Air Pollutants |
| HAZUS | natural hazard GIS database |
| HCD | Housing and Community Development |
| HCFC-22 | chlorodifluoromethane |
| HCFCs | hydrochlorofluorocarbons |
| HCM | Highway Capacity Manual |
| HCP | Habitat Conservation Plan |
| HLP | Habitat Loss Permit |
| HMBP | Hazardous Material Business Plan |
| HMD | Hazardous Materials Division |

| | |
|---|---|
| HMP | Hydromodification Management Plan |
| HOV | High Occupancy Vehicle |
| HPL | San Diego County Historic Property Listing |
| HRA | health risk assessment |
| HSC | Health and Safety Code |
| HSGT | high-speed ground transportation |
| HU | Hydrologic Unit |
| HUD | Housing and Urban Development |
| HVAC | heating, ventilating, and air conditioning |
| HWD | Helix Water District |
| Hz | hertz |
| | |
| I-15 | Interstate 15 |
| I-8 | Interstate 8 |
| IAWP | Interim Agricultural Water Program |
| IBC | International Building Code |
| ICLEI | International Council for Local Environmental Initiatives |
| IEPR | Integrated Energy Policy Report |
| IFC | International Fire Code |
| in/sec | inches per second |
| IPCC | Intergovernmental Panel of Climate Change |
| IRP | Integrated Resources Plan |
| IWMA | Integrated Waste Management Act |
| IWMP | Integrated Waste Management Plan |
| IWRMP | Integrated Water Resources Management Plan |
| | |
| JCSD | Jacumba Community Services District |
| JPAs | Joint Powers Authorities |
| JSD | Julian Sanitation District |
| Julian CSD | Julian Community Services District |
| | |
| km | kilometers |
| kWh | kilowatt hours |
| | |
| LAFCO | Local Agency Formation Commission |
| LARA | Local Agricultural Resource Assessment |
| LCC | land capability classification |
| LCCREF | Leadership Conference on Civil Rights Education Fund |
| LEA | Local Enforcement Agency |
| LEED | Leadership in Energy and Environmental Design |
| LEFMP | Law Enforcement Facilities Master Plan |
| Leq | equivalent continuous noise level |
| LESA | land evaluation site assessment |
| LHP | Landslide Hazards Program |

| | |
|---|---|
| LID | low impact development |
| Lmax | hourly Leq, maximum sound level |
| Lmin | minimum sound level |
| Lng | liquefied natural gas |
| LOS | level of service |
| LPC | Light Pollution Code |
| LRA | Local Responsibility Areas |
| LSD | Lakeside Sanitation District |
| LTF | Local Transportation Fund |
| LUFT | leaking underground fuel tanks |
| LWD | Lakeside Water District |
| | |
| µg/m3 | micrograms per cubic meter |
| MACTs | maximum achievable control technologies |
| MBTA | Migratory Bird Treaty Act |
| MBTE | methyl tertiary butyl ether |
| MCB | Marine Corps Base |
| MCL | maximum contaminant levels |
| mg | million gallons |
| $mg/m^3$ | milligrams per cubic meter |
| mgd | million gallons per day |
| mm/yr | millimeters per year |
| MMcfd | million cubic feet/day |
| MMI | Modified Mercalli Intensity |
| MMRP | mitigation monitoring and reporting program |
| MMT CO2e | one million metric tons of carbon monoxide equivalent |
| MMtherms | million therms |
| MMWD | Mootamai Municipal Water District |
| MPCSD | Majestic Pines Community Services District |
| MPI | minutes per inch |
| MPOs | metropolitan planning organizations |
| MS4 | metropolitan separate storm sewer systems |
| MSCP | Multiple Species Conservation Program |
| MSRs | municipal service reviews |
| MTS | Metropolitan Transit System |
| MUP | Major Use Permit |
| MVA | megavolt amperes |
| MW | megawatts |
| Mw | moment magnitude |
| MWD | Metropolitan Water District of Southern California |
| MWMP | Medical Waste Management Program |
| mya | million years ago |

| | |
|---|---|
| NAAQS | National Ambient Air Quality Standards |
| NAFTA | North American Free Trade Agreement |
| NAGPRA | Native American Graves Protection and Repatriation Act |
| NAHC | Native American Heritage Commission |
| NASA | National Aeronautics and Space Administration |
| NCCP | Natural Community Conservation Planning |
| NCTD | North County Transit District |
| NDAA | California Natural Disaster Assistance Act |
| NEPA | National Environmental Policy Act |
| NESHAPS | National Emissions Standards for Hazardous Air Pollutants |
| NFIP | National Flood Insurance Program |
| NFS | National Forest Service |
| NHL | National Historic Landmark |
| NHPA | National Historic Preservation Act |
| NHS | National Highway System |
| NMFS | National Marine Fisheries Service |
| NNL | National Natural Landmarks |
| $NO_2$ | nitrogen dioxide |
| NOP | Notice of Preparation |
| $NO_X$ | nitrous oxides or oxides of nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| NPDWR | National Primary Drinking Water Regulations |
| NPPA | California Native Plant Protection Act |
| NPS | National Park Service |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NRI | Natural Resources Inventory |
| NSB | National Scenic Byway |
| NSDWR | National Secondary Drinking Water Regulations |
| NSR | New Source Review |
| | |
| $O_3$ | ozone |
| OAEP | Operational Area Emergency Plan |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OES | County of San Diego Office of Emergency Services |
| OHV | Off-Highway Vehicle |
| OHMVR | Off-Highway Motor Vehicle Recreation |
| OMWD | Olivenhain Municipal Water District |
| OPR | California Office of Planning and Research |
| ORV | Off-Road Vehicle |
| OSSA | Open Space Subvention Act |
| OSM | U.S. Office of Surface Mining |
| OWD | Otay Water District |
| OWTS | on-site wastewater treatment systems |

| | |
|---|---|
| PAA | plan amendment authorization |
| PACE | purchase of agricultural conservation easement |
| Pb | lead |
| PDMWD | Padre Dam Municipal Water District |
| PFCs | perfluorocarbons |
| PLDO | Park Lands Dedication Ordinance |
| $PM_{10}$ | respirable particulate matter less than 10 microns in diameter |
| $PM_{2.5}$ | fine particulate matter less than 2.5 microns in diameter |
| PMWD | Pauma Municipal Water District |
| PPH | persons per household |
| pphm | parts per hundred million |
| ppm | parts per million |
| PPV | peak particle velocity |
| PRC | Public Resources Code |
| PRG | preliminary remediation goals |
| prs/rm | persons/room |
| PSD | prevention of significant deterioration |
| PUC | Public Utilities Commission |
| PVCSD | Pauma Valley Community Services District |
| PVSD | Pine Valley Sanitation District |
| QMWD | Questhaven Municipal Water District |
| RAQS | Regional Air Quality Strategy |
| RAS | regional arterial system |
| RCAs | resource conservation areas |
| RCP | Regional Comprehensive Plan |
| RCRA | Resource Conservation and Recovery Act |
| RCRIS | Resource Conservation and Recovery Information System |
| RDDMWD | Rincon del Diablo Municipal Water District |
| REZ | rezone |
| RHNA | regional housing needs allocation |
| RHP | regional homeless profile |
| RMP | Risk Management Plan |
| RMS | root mean square |
| RMWD | Rainbow Municipal Water District |
| ROGs | reactive organic gases |
| RPO | Resource Protection Ordinance |
| RPS | renewable portfolio standard |
| RSFCSD | Rancho Santa Fe Community Services District |
| RTFH | Regional Task Force on the Homeless |
| RTIP | Regional Transportation Improvement Program |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |

| | |
|---|---|
| SA/SB | Sweetwater Authority/South Bay Irrigation District |
| SAM | site assessment and mitigation |
| SANDAG | San Diego Association of Governments |
| SANTEC/ITE | San Diego Traffic Engineering Council/Institution of Transportation Engineers |
| SARA | Superfund Amendments and Reauthorization Act |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCE | Southern California Edison |
| SCIC | South Coast Information Center |
| SD&AE | San Diego and Arizona Eastern Railway |
| SD&IV | San Diego and Imperial Valley Railroad |
| SDAB | San Diego Air Basin |
| SDAPCD | San Diego Air Pollution Control District |
| SDCGHGI | San Diego County Greenhouse Gas Inventory |
| SDCL | San Diego County Library |
| SDCPLL | San Diego County Public Law Library |
| SDCRAA | San Diego County Regional Airport Authority |
| SDCWA | San Diego County Water Authority |
| SDG&E | San Diego Gas and Electric Company |
| SDHR | San Diego Hydrologic Region |
| SDMWD | City of San Diego Metropolitan Wastewater Department |
| SDRWQCB | San Diego Regional Water Quality Control Board |
| SDSD | San Diego County Sheriff's Department |
| SDSU | San Diego State University |
| SDTC | San Diego Transit Corporation |
| SDWA | Safe Drinking Water Act |
| sf | square feet |
| SF6 | sulfur hexafluoride |
| SFHA | special flood hazard areas |
| SFID | Santa Fe Irrigation District |
| SFP | School Facilities Program |
| SGOA | smart growth opportunity areas |
| SIP | State Implementation Plan |
| SLRMWD | San Luis Rey Municipal Water District |
| SLTs | screening-level thresholds |
| $SO_2$ | sulfur dioxide |
| $SO_4^{2}$ | sulfates |
| SoCalGas | Southern California Gas Company |
| SOI | Sphere of Influence |
| SONGS | San Onofre Nuclear Generating Station |
| SOPA | schedule of proposed actions |
| $SO_X$ | oxides of sulfur |
| SP | Specific Plan |
| SR | State Route |

| | |
|---|---|
| SRA | State Responsibility Area |
| STA | State Transit Assistance |
| STAPPA | State and Territorial Air Pollution Program Administrators |
| Subregion | subregional planning area |
| SUSMP | standard urban stormwater mitigation plan |
| SVSD | Spring Valley Sanitation District |
| SWIS | Solid Waste Inventory System |
| SWFP | Solid Waste Facility Permit |
| SWP | State Water Project |
| SWPPPs | stormwater pollution prevention plans |
| SWRCB | State Water Resources Control Board |
| | |
| TACs | toxic air contaminants |
| TAZs | Traffic Analysis Zones |
| T-BACT | Toxic Best Available Control Technology |
| TCU | transportation, communication and utilities |
| TDA | Transportation Development Act |
| TDR | Transfer of Development Rights |
| TDS | total dissolved solids |
| TIF | transportation impact fee |
| TIS | traffic impact study |
| TM | Tentative Map |
| TMDL | total maximum daily load |
| TPM | Tentative Parcel Map |
| TRB | Transportation Research Board |
| TSDF | Treatment, Storage and Disposal Facilities |
| | |
| U.S. | United States |
| UBC | Unified Building Code |
| UDC | Unified Disaster Council |
| UNFCCC | United Nations Framework Convention on Climate Change |
| URM | unreinforced masonry |
| URMP | urban runoff management plan |
| USDA | U.S. Department of Agriculture |
| USDRIP | Upper San Diego River Improvement Project |
| USFS | U.S. Forest Service |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| USMC | U.S. Marine Corps |
| USO | County of San Diego Uniform Sewer Ordinance |
| USTs | underground storage tanks |
| UWMP | urban water management plan |
| UXO | unexploded ordinance |

| | |
|---|---|
| V/C | volume to capacity |
| VCMWD | Valley Center Municipal Water District |
| VID | Vista Irrigation District |
| VMT | vehicle miles traveled |
| VOCs | volatile organic compounds |
| VWD | Vallecitos Water District |
| WPO | Watershed Protection, Stormwater Management, and Discharge Control Ordinance |
| WMA | watershed management area |
| WMP | watershed management plan |
| WNV | West Nile Virus |
| WPCSD | Whispering Palms Community Services District |
| WSA | water supply assessment |
| WWD | Wynola Water District |
| WWM | wastewater management |
| WUI | wildland urban interface |
| YMWD | Yuima Municipal Water District |
| ZO | Zoning Ordinance |

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# SUMMARY

This chapter is a summary of the Environmental Impact Report (EIR) for the County of San Diego General Plan Update, prepared pursuant to the California Environmental Quality Act (CEQA). The technical appendices for the environmental analysis are included in Volume II of the EIR. Comments on the Draft EIR are provided in Volume III, which also includes responses to comments and a summary of revisions to the Draft EIR. Finally, Volume IV is an environmental analysis of the Recommended Project, which is the alternative derived through Planning Commission and Board of Supervisor hearings.

This chapter highlights the proposed actions and consequences in the environmental analysis for the General Plan Update, as required by CEQA Guidelines Section 15123. It also provides a brief description of the General Plan Update, project objectives, alternatives to the General Plan Update, areas of controversy, and issues to be resolved. In addition, Table S-1 at the end of this chapter provides the following information: 1) the direct and cumulative impacts that would occur from implementation of the General Plan Update; 2) the significance of impact before mitigation; 3) the recommended mitigation measures that would avoid or reduce significant environmental impacts; and 4) the significance of impact after mitigation measures are implemented. Finally, Table S-2 compares the anticipated impacts of the General Plan Update with those of each project alternative.

## S.1 Overview

As required by CEQA, Volumes I and II of this EIR: 1) assess the potentially significant direct, indirect, and cumulative environmental effects of the General Plan Update; 2) identify potential feasible means of avoiding or substantially lessening significant adverse impacts; and 3) evaluate a range of reasonable alternatives to the General Plan Update, including the required No Project Alternative. The County of San Diego is the “lead agency” for the General Plan Update evaluated in Volumes I and II of this EIR, and has the principal responsibility for certifying the EIR and approving the General Plan Update. Pursuant to CEQA Guidelines, Volumes I and II of this EIR consist of an EIR that evaluates the effects of the entire General Plan Update. This EIR will be used by the County of San Diego to evaluate the environmental implications of adopting the General Plan Update.

## S.2 Project Description

San Diego County is located in the southwestern corner of California. It is bordered by Riverside and Orange Counties to the north; Imperial County to the east; the Federal Republic of Mexico to the south; and the Pacific Ocean to the west. The unincorporated area of the County encompasses approximately 2.3 million acres, of which 807,000 acres (or 35 percent) is privately owned land. The unincorporated County is divided into 24 planning areas. Fifteen of the planning areas are referred to as Community Planning Areas (CPAs) and nine areas are called Subregional Planning Areas (Subregions). The 15 CPAs are Alpine, Bonsall, County Islands, Fallbrook, Julian, Lakeside, Pendleton/De Luz, Pepper Drive/Bostonia, Rainbow, Ramona, San Dieguito, Spring Valley, Sweetwater, Valle de Oro, and Valley Center. The nine Subregions are Central Mountain, Crest/Dehesa/Harbison Canyon/Granite Hills, Desert, Jamul/Dulzura, Mountain Empire, North County Metropolitan, North Mountain, Otay, and Pala/Pauma Valley. Pepper Drive/Bostonia will be merged into the Lakeside CPA with the adoption of the General Plan Update to reduce the total planning areas to 23. For the purpose

of this EIR and the impact analysis, Pepper Drive/Bostonia is included in the Lakeside CPA. In some cases, Subregions are further divided by planning sponsor group areas where a group has been formed pursuant to County policy to represent a specified area.

The purpose of the County of San Diego General Plan Update is to establish a blueprint for future land development projects in the unincorporated County that meets community desires and balances the environmental protection goals with the need for housing, agriculture, infrastructure, and economic vitality. The General Plan Update applies to all of the unincorporated portions of San Diego County and will direct population growth and plan for infrastructure needs, development, and resource protection. The update to the existing General Plan includes the adoption of new General Plan elements, which set the goals and policies that guide future development. It also includes a corresponding proposed land use map, a County Road Network map, updates to Community and Subregional Plans, an Implementation Plan, and other implementing policies and ordinances. The General Plan Update will focus population growth in the western areas of the County where infrastructure and services are available in order to reduce the potential for growth in the eastern areas. The objectives of this population distribution strategy are to: 1) facilitate efficient, orderly growth by containing development within areas potentially served by the San Diego County Water Authority (SDCWA) or other existing infrastructure; 2) protect natural resources through the reduction of population capacity in sensitive areas; and 3) retain or enhance the character of communities within the unincorporated County. The SDCWA service area approximately covers the western one third of the unincorporated County. The SDWCA boundary generally represents where water and wastewater infrastructure currently exist. This area is more developed than the eastern areas of the unincorporated County, and would accommodate more growth under the proposed General Plan Update.

## S.3 Project Objectives

The General Plan Update is based on a set of ten interrelated principles (objectives) that provide guidance for accommodating future growth while retaining and enhancing the County's rural character, economy, and unique communities, as well as minimizing the environmental impacts of future development. These principles serve as the proposed project objectives.

The proposed General Plan Update would:

1. Support a reasonable share of projected regional population growth.

2. Promote sustainability by locating new development near existing infrastructure, services, and jobs.

3. Reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment, and recreational opportunities.

4. Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance.

5. Ensure that development accounts for physical constraints and the natural hazards of the land.

6. Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns.

7. Maintain environmentally sustainable communities and reduce greenhouse gas (GHG) emissions that contribute to climate change.

8. Preserve agriculture as an integral component of the region's economy, character, and open space network.

9. Minimize public costs of infrastructure and services and correlate their timing with new development.

10. Recognize community and stakeholder interests while striving for consensus.

## S.4 Impact Summary

Volume I of this EIR examines the potential environmental effects from implementation of the General Plan Update, including information related to existing site conditions, analyses of the types and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the General Plan Update are analyzed for the following issue areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Global Climate Change

Table S-1, presented at the end of this chapter, provides a summary of the environmental impacts that could result from implementation of the General Plan Update and feasible mitigation measures that could reduce or avoid environmental impacts. For each impact, Table S-1 identifies the significance of the impact before mitigation, applicable mitigation measures, and the level of significance of the impact after the implementation of the mitigation measures.

## S.5 Alternatives to the General Plan Update

The following alternatives were analyzed in Volume I of this EIR and compared to the Referral Map, which is the proposed project land use map for the General Plan Update. With the exception of the No Project Alternative, the Referral Map is the most environmentally impactive alternative. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision making and public participation. The General Plan Update alternatives include:

- **Hybrid Map Alternative.** The Hybrid Map Alternative represents a balance between the proposed project and the Draft Land Use Map Alternative. It includes Regional Housing Needs Allocation (RHNA) refinements, road network land use changes, and other refinements to the proposed project.

- **Draft Land Use Map Alternative.** The Draft Land Use Map Alternative was endorsed by the County of San Diego Board of Supervisors (BOS). It includes additional residential land use refinements related to meeting the RHNA and additional land use modifications to achieve a road network that would better accommodate the land use map.

- **Environmentally Superior Map Alternative.** The Environmentally Superior Map Alternative reflects a more stringent application of the planning concepts that take into account environmental considerations and constraints, and is more aggressive in restricting growth in portions of the semi-rural residential and the rural lands designations.

- **No Project Alternative.** The No Project Alternative assumes that the existing General Plan would remain in effect and is represented by the land use map, goals and policies for the existing General Plan.

Detailed descriptions and an analysis of the potential impacts of each alternative are presented in Chapter 4.0, Project Alternatives, in Volume I of this EIR. Table S-2 presents the significant environmental impacts of these alternatives compared to those of the Referral Map (proposed project). The environmentally superior alternative would be the Environmentally Superior Map Alternative. This alternative would take into account environmental considerations and constraints, and is more aggressive in restricting growth in the unincorporated County and would, therefore, reduce some of the significant impacts that would occur from the General Plan Update related to air quality, biological resources, and hydrology and water quality. The Environmentally Superior Map Alternative would accomplish all of the objectives identified for the proposed project with varying levels of fulfillment. For two of the ten project objectives, the Environmentally Superior Map Alternative would only partially fulfill the project objectives identified for the proposed project. For eight of the ten objectives the Environmentally Superior Map Alternative would adequately fulfill the objectives, similar to the proposed project.

## S.6 Areas of Controversy and Issues to be Resolved by the Decision Making Body

## Areas of Controversy Known to the Lead Agency

CEQA Guidelines Section 15123(b)(2) requires that an EIR identify areas of controversy, including issues raised by other agencies and the public. Areas of known controversy associated with the General Plan Update that are relevant to the EIR are listed below:

- Location and intensity of planned land uses and residential densities
- Perceived taking of property or development rights
- Absence of an equity mechanism such as transfer of development rights

- Impacts to roads within adjacent jurisdictions
- Impacts to facilities and other infrastructure in adjacent jurisdictions' spheres of influence
- Consistency with SB 375
- Finding balance between preservation of natural resources and risk from fire hazards
- Water availability and supply
- Consistency between community plans and other general plan components
- Method of achieving conservation (compact or clustered) subdivision design
- Compatibility with conservation plans and special area management plans
- Treatment of Forest Conservation Initiative lands
- Treatment of existing private development projects under consideration by County that are not consistent with the proposed project
- Estimating population growth and adequately accommodating the growth that is projected
- Perceived special treatment of certain properties or lack thereof

## Issues to be Resolved by the Decision Making Body

The County of San Diego BOS serves as the decision making body for the General Plan Update. The following is a description of issues related to the General Plan Update that must be resolved by the BOS prior to or at the time of project approval and EIR certification. Prior to the BOS taking final action on these issues, recommendations will be developed by the Department of Planning and Land Use and the Planning Commission. In developing these recommendations and rendering a decision, the County will consider input provided by the public, other agencies, the community planning groups, and the General Plan Update advisory groups. Additionally, the decisions of the Planning Commission and BOS are made in public hearings at which public comment is invited.

- **Final Composition of the General Plan Update Land Use Map.** The BOS must decide on the final composition of the General Plan Update land use map, specifically addressing which land use designations will be assigned to specific properties. This EIR evaluates the Referral Map as the proposed project, along with three land use map alternatives: the Hybrid Map Alternative, the Draft Land Use Map Alternative, and the Environmentally Superior Alternative. The proposed project and alternatives represent a range of development intensities with similar types of environmental effects but with differing degrees of impact. Detailed evaluations of the differences between the Referral Map and two of the alternatives are included in Volume II, Appendix L of the EIR, Project Alternatives Areas of Difference, to inform the BOS. It is likely that the BOS will approve a land use map that represents a combination of the alternatives where a designation on a particular property is the same as on one of the alternatives or within the range that is evaluated in the EIR. Should the BOS decide to approve a designation that is beyond the range that is considered in this EIR, additional analysis may be necessary prior to certification of the EIR.

- **General Plan Update Text, Roadway Network, and Other Components.** The BOS must decide on the final composition of the General Plan elements, circulation maps, and other components of the project. During the course of the project, the County has compiled

countless comments and recommendations from advisory groups, community groups, agencies, and other stakeholders. The Department of Planning and Land Use has continually sought consensus but a variety of opposing opinions remain. The BOS will make a final ruling in these areas of differing opinion, which will be reflected in the text or maps of the General Plan or in the documents of other components of the project. Specifically, items that will likely be considered include the wording of General Plan narrative, goals, and policies; the circulation network and road classifications; the land use maps; wording and content of the community plans; content of the General Plan Implementation Plan; and other related components. Any modification made by the BOS to these elements that are outside of the analysis contained in this EIR will require additional analysis prior to approval and certification of the EIR.

- **Proposed Mitigation.** The BOS will evaluate the full array of mitigation measures described in Chapter 7.0 of this EIR and determine whether they represent all feasible measures to substantially lessen the significant environmental effects identified in this EIR. The BOS may decide to add or alter measures to improve effectiveness in lessening significant environmental effects. Additionally, the BOS may decide that certain measures are inappropriate or infeasible. The BOS would prepare and adopt detailed findings on the feasibility of mitigation measures to substantially lessen or avoid the significant effects on the environment.

- **Consideration of Project Alternatives.** The BOS will evaluate the alternatives discussed in Chapter 4.0 of this EIR. As discussed above, the BOS may decide to adopt part or all of an alternative. For those alternatives that would substantially lessen the significant environmental effects identified in this EIR, the BOS must either adopt the alternative or find it to be infeasible.

- **Benefits of the Project Compared to Environmental Risk.** This EIR has identified adverse environmental effects that are unavoidable. The BOS must determine if the adverse environmental effects are considered acceptable with consideration of economic, legal, social, technological, and other relevant benefits of the General Plan Update. In making this determination, it is relevant for the BOS to consider the existing General Plan in comparison to the proposed General Plan Update. The BOS would prepare a statement of overriding considerations as described in CEQA Section 15093 to reflect the ultimate balancing of competing public objectives if the BOS decides to approve the proposed project or alternatives, which have the potential to cause one or more significant effects on the environment.

- **Project Approval.** Ultimately, the BOS must decide whether or how to approve or carry out the General Plan Update.

## Table S-1. Summary of Project Impacts

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.1 Aesthetics** | | | | | |
| **1. Scenic Vistas:** The proposed General Plan Update would have the potential to result in the obstruction, interruption, or detraction of a scenic vista as a result of future development activity. | Potentially Significant | Potentially Significant | LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, LU-6.9, LU-10.1, LU-10.2, M-2.3, COS-11.1, COS-11.2, COS-11.3, COS-11.4, COS-11.5, COS-11.6, COS-11.7, COS-12.1, COS-12.2 | Aes-1.1 through Aes-1.11 | Less Than Significant |
| **2. Scenic Resources:** Implementation of the proposed General Plan Update would allow development to occur that would have the potential to impact scenic resources through the removal or substantial adverse change of features that contribute to the valued visual character or image of the neighborhood, community, State Scenic Highway, or localized area. | Potentially Significant | Potentially Significant | LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, LU-6.9, LU-10.1, LU-10.2, M-2.3, COS-11.1, COS-11.2, COS-11.3, COS-11.4, COS-11.5, COS-11.6, COS-11.7, COS-12.1, COS-12.2 | The mitigation measures identified for Issue 1: Scenic Vistas would also mitigate impacts to scenic resources | Less Than Significant |
| **3. Visual Character or Quality:** Implementation of the General Plan Update would allow increased development densities to occur in some areas which would result in the potential degradation of the existing visual character or quality of a community. | Potentially Significant | Potentially Significant | LU-1.4, LU-2.1, LU-2.3, LU-2.5, LU-4.1, LU-4.2, LU-4.3, LU-4.4, LU-11.2, LU-12.4, M-10.6, H-2.1 | Aes-3.1 and Aes-3.2 and the mitigation measures identified for Issue 1: Scenic Vistas | Significant and Unavoidable |
| **4. Light or Glare:** The proposed General Plan Update would have the potential to result in increased light and glare within the County that would adversely affect day or nighttime views. | Potentially Significant | Potentially Significant | COS-13.1, COS-13.2, COS-13.3 | Aes-4.1 through Aes-4.3 | Significant and Unavoidable |
| **2.2 Agricultural Resources** | | | | | |
| **1. Conversion of Agricultural Resources**: Implementation of the proposed General Plan Update would result in the potential conversion of 55,963 acres of agricultural resources to non-agricultural land uses. | Potentially Significant | Potentially Significant | LU-6.4, LU-7.1,LU-7.2, COS-6.4 | Agr-1.1 through Agr-1.5 | Significant and Unavoidable |
| **2. Land Use Conflicts:** Implementation of the proposed General Plan Update would result in potential conflicts with Williamson Act contract lands. | Potentially Significant | Less Than Significant | LU-7.1, COS-6.3 | Agr-2.1 | Less Than Significant |
| **3. Indirect Conversion of Agricultural Resources:** Implementation of the General Plan Update would redirect high density growth into areas containing agricultural resources and potentially cause some indirect conversion of agricultural resources to non-agricultural use. | Potentially Significant | Potentially Significant | COS-6.2 and COS-6.3, and the policies identified for Issue 1: Conversion of Agricultural Resources | The mitigation measures identified for Issue 1: Conversion of Agricultural Resources would also reduce impacts to indirect conversion of agricultural resources | Significant and Unavoidable |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.3 Air Quality** | | | | | |
| **1. Air Quality Plans:** The proposed General Plan Update would not conflict with or obstruct implementation of the RAQS or SIP. | Less Than Significant | Less Than Significant | None | None Required | Less Than Significant |
| **2. Air Quality Violations:** The proposed General Plan Update would have the potential to result in a violation of an air quality standard. | Potentially Significant | Potentially Significant | COS-14.1, COS-14.2, COS-14.8, COS-14.9, COS-14.10, COS-15.1, COS-15.3, COS-15.4, COS-15.5, COS-16.2, COS-16.3, COS-20.3 | Air-2.1 through Air-2.13, and the mitigation measures identified for Issue 1: Compliance with AB 32 in Section 2.17, Global Climate Change | Significant and Unavoidable |
| **3. Non-Attainment Criteria Pollutants**: The proposed General Plan Update would have the potential to result in a cumulatively considerable net increase in pollutants for which the SDAB is listed as non-attainment. | Potentially Significant | Potentially Significant | COS-14.1, COS-14.2, COS-14.8, COS-14.9, COS-14.10, COS-15.1, COS-15.3, COS-15.4, COS-15.5, COS-16.2, COS-16.3, COS-20.3 | The mitigation measures identified for Issue 2: Air Quality Violations would also reduce impacts to the non-attainment criteria pollutants. | Significant and Unavoidable |
| **4. Sensitive Receptors:** The proposed General Plan Update would have the potential to result in the exposure of sensitive receptors to substantial amounts TACs or HAPs that would result in a potentially significant increase in cancer risk. | Potentially Significant | Potentially Significant | None | Air-4.1 | Significant and Unavoidable |
| **5. Objectionable Odors:** The proposed General Plan Update would comply with APCD regulations that require odor sources to reduce impacts to nearby receptors. | Less Than Significant | Less Than Significant | None | None Required | Less Than Significant |
| **2.4 Biological Resources** | | | | | |
| **1. Special Status Species:** Implementation of the proposed General Plan Update would have the potential to directly and indirectly result in impacts to special status species. | Potentially Significant | Potentially Significant | COS-1.3, COS-1.6 through COS-1.11, COS-2.1, COS-2.2, LU-6.1, LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, LU-10.2 | Bio-1.1 through Bio-1.7 | Significant and Unavoidable |
| **2. Riparian Habitat and Other Sensitive Natural Communities:** Implementation of the proposed General Plan Update would have the potential to result in direct and indirect impacts to riparian habitat and other sensitive natural communities. | Potentially Significant | Potentially Significant | COS-3.1 and the policies for Issue 1: Special Status Species | Bio-2.1 through Bio-2.4 and the mitigation measures identified for Issue 1: Special Status Species | Significant and Unavoidable |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **3. Federally Protected Wetlands**: Implementation of the proposed General Plan Update would have the potential to result in a potentially significant direct impact to federally protected wetlands. | Potentially Significant | Less Than Significant | COS-3.1 and COS-3.2 | Bio-1.1, Bio-1.5, Bio-1.6, Bio-1.7, Bio-2.2, Bio-2.3, Bio-2.4 | Less Than Significant |
| **4. Wildlife Movement Corridors and Nursery Sites:** Implementation of the proposed General Plan Update would have the potential to impact wildlife movement corridors. | Potentially Significant | Potentially Significant | COS-1.1 through COS-1.5, LU-6.1, LU-6.7 | Bio-1.1, Bio-1.2, Bio-1.3, Bio-1.4, Bio-1.5, Bio-1.6, Bio-1.7, Bio-2.3 | Significant and Unavoidable |
| **5. Local Policies and Ordinances:** Implementation of the proposed General Plan Update would not conflict with local biological resources related policies and ordinances. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: COS-1.2, COS-1.3. COS-1.9 | None Required | Less Than Significant |
| **6. Habitat Conservation Plans and Natural Community Conservation Plans:** Implementation of the proposed General Plan Update would not conflict with any applicable HCP or NCCP. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: COS-1.2, COS-1.3. COS-1.6 though COS-1.10 | None Required | Less Than Significant |
| **2.5 Cultural Resources** | | | | | |
| **1. Historical Resources:** Implementation of the proposed General Plan Update would result in new development that would have the potential to result in substantial adverse changes to the significance of historical resources. | Potentially Significant | Less Than Significant | COS-8.1 | Cul-1.1 through Cul-1.8 | Less Than Significant |
| **2. Archaeological Resources:** Implementation of the proposed General Plan Update would result in new development that would have the potential to cause a substantial adverse change in the significance of an archaeological resource, including the destruction or disturbance of an archaeological site that contains or has the potential to contain information important to history or prehistory. | Potentially Significant | Less Than Significant | COS-7.1 through COS-7.4 | Cul-1.1, Cul-1.6 Cul-2.1 through Cul-2.6 | Less Than Significant |
| **3. Paleontological Resources:** Implementation of the proposed General Plan Update would result in new development that would have the potential to adversely impact unique paleontological resources. | Potentially Significant | Less Than Significant | COS-9.1 | Cul-3.1 and Cul-3.2 | Less Than Significant |
| **4: Human Remains:** Implementation of the proposed General Plan Update would result in new development that would have the potential to disturb human remains, including those discovered outside of formal cemeteries. | Potentially Significant | Less Than Significant | COS-7.5 | Cul-1.1, Cul-1.6, Cul-4.1 | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.6 Geology and Soils** | | | | | |
| **1. Exposure to Seismic Related Hazards**: Implementation of the proposed General Plan Update would designate land uses, which would allow development to occur in areas with geological risks, such as seismically induced ground shaking, liquefaction, and landslides. However, future development would be required to comply with all relevant federal, State and local regulations and building standards, including the CBC and the County required geotechnical reconnaissance reports and investigations. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: S-7.1, S-7.2, S-7.3, S-7.4, S-8.1, S-8.2 | None Required | Less Than Significant |
| **2. Soil Erosion or Top Soil Loss:** The land uses proposed under the General Plan Update would allow construction and operational activities that would have the potential to expose topsoil to erosion from water or wind. This is considered a potentially significant impact. However, compliance with existing applicable regulations including the NPDES, CBC, and the County Grading Ordinance, would reduce potential impacts to below a significant level. | Less Than Significant | Less Than Significant | None Required<br>However, the following policy is applicable to this issue: LU-6.5 | None Required | Less Than Significant |
| **3. Soil Stability:** The proposed General Plan Update would have the potential to result in hazards associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. However, future development associated with the land uses designated in the proposed General Plan Update would be required to comply with all applicable federal, State and local building standards and regulations, including the CBC and County required geotechnical reconnaissance reports and investigations. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: S-7.1, S-7.2, S-7.3, S-7.4, S-8.1, S-8.2 | None Required | Less Than Significant |
| **4. Expansive Soils:** The General Plan Update would designate land uses that would allow for the development of structures on potentially expansive soils. Future projects located in areas with expansive soils would be required to comply with all applicable federal, State and local regulations, including the IBC, UBC and CBC. Compliance with such regulations would reduce impacts to a below a level of significance. | Less Than Significant | Less Than Significant | None Required<br>However, the following policy is applicable to this issue: S-7.2 | None Required | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **5. Waste Water Disposal Systems:** Implementation of the proposed General Plan Update would designated land uses that have the potential to allow development in areas where soils are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. However, future development projects would be required to comply with all applicable federal, State and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would reduce the potential for septic systems to be located in soils incapable of supporting such systems. | Less Than Significant | Less Than Significant | None Required | None Required | Less Than Significant |
| **6. Unique Geologic Features**: Implementation of the proposed General Plan Update would designate land uses that would allow development in areas that may have the potential to materially impair a unique geologic feature by destroying or altering the physical characteristics that convey the uniqueness of the resource. However, any future development would be required to follow regulations, including completion of a County required geological reconnaissance report. | Less Than Significant | Less Than Significant | None Required<br>However, the following policy is applicable to this issue: COS-9.2 | None Required | Less Than Significant |
| **2.7 Hazards and Hazardous Materials** | | | | | |
| **1. Transport, Use, and Disposal of Hazardous Materials:** Implementation of the proposed General Plan Update would result in an increase in the transport, use, and disposal of hazardous materials. However, the project would be required to comply with federal, State and local regulatory requirements, including RCRA, CERCLA, Hazardous Materials Transportation Act, CFC, Title 22, CCR Title 27, and the County Consolidated Fire Code, which strictly regulate the transportation, use and disposal of hazardous materials. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: S-1.1, S-1.2, S-11.1, S-11.2 | None Required | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2. Accidental Release of Hazardous Materials:** Implementation of the General Plan Update would result in land uses, such as limited impact industrial, medium impact industrial, and high impact industrial, that commonly store, use, and dispose of hazardous materials. Additionally, industries and businesses using hazardous materials may expand or increase to accommodate the projected population growth under the General Plan Update. However, all future development allowable under the proposed land uses of the General Plan Update, would be required to comply with applicable federal, State and local regulations related to the accidental release of hazardous materials. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: LU-11.9, LU-11.11, S-1.1, S-1.2, S-11.1, S-11.2 | None Required | Less Than Significant |
| **3. Hazardous to Schools:** The proposed General Plan Update would result in land uses that have a high potential for hazardous materials to be located within one-quarter mile of an existing or proposed school or daycare. However, compliance with General Plan Update policies and federal and State regulations pertaining to hazardous wastes, including the CEQA Guidelines, would ensure that risks associated with hazardous emissions and schools would be below a level of significance. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: S-11.3, LU-11.10 | None Required | Less Than Significant |
| **4. Existing Hazardous Materials Sites:** Under implementation of the proposed General Plan Update, land uses and development may be located on a site that may create potentially significant hazards to the public or environment, such as those pursuant to Government Code 65962.5, burn dump sites, active, abandoned or closed landfills, FUDS, areas with historic or current agriculture, or areas with petroleum contamination. However, future development of land uses proposed under the General Plan Update would be required to comply with applicable General Plan Update policies and existing federal, State, and local regulations related to existing on-site hazardous materials contamination. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: S-1.1, S-1.2, S-11.4, S-11.5 | None Required | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **5. Public Airports:** Generally, land uses proposed under the General Plan Update and within the vicinity of public airports include rural lands, open space, semi-rural lands, and federal and State lands. However, under the General Plan Update, some public airports, such as Fallbrook Community Airport, may be located adjacent to land uses such as village residential, which would maintain higher density populations and have the potential to result in significant hazards to the public. Although the proposed project would be required to comply with the ALUCP, development within an AIA of a public airport would have the potential to increase the risk of people living or working in these areas to hazards associated with airport operations. | Potentially Significant | Potentially Significant | LU-4.7, M-7.1, S-15.1, S-15.2, S-15.3 | Haz-1.1 through Haz-1.5 | Less Than Significant |
| **6. Private Airports**: Implementation of the proposed General Plan Update may result in land use designations that allow development within the two miles of a private airport. | Potentially Significant | Potentially Significant | S-15.1, S-15.2, S-15.3, S-15.4 | Haz-1.1 through Haz-1.5, Haz-2.1 | Less Than Significant |
| **7. Emergency Response and Evacuation Plans:** Implementation of the General Plan Update would increase land uses and development in areas of the County that may not have accounted for this growth in their existing emergency response and evacuation plans. | Potentially Significant | Potentially Significant | S-1.3, M-1.2, M-3.3, M-4.3 | Haz-3.1 through Haz-3.3 | Less Than Significant |
| **8. Wildland Fires:** Implementation of the proposed General Plan Update would result in land uses that allow residential, commercial and industrial development in areas that are prone to wildland fires. This is due to the fact that the majority of the unincorporated County is located in high or very high fire hazard severity zones. Implementation of the General Plan Update would have the potential to expose people or structures to a potentially significant risk of loss, injury, or death involving wildland fires. | Potentially Significant | Potentially Significant | LU-6.11, LU-11.2, S-3.1, S-3.2, S-3.3, S-3.4, S-3.6, S-4.1, COS-18.3 | Haz-4.1 through Haz-4.5 | Significant and Unavoidable |
| **9. Vectors:** Future development of land uses consistent with the General Plan Update would have the potential to increase human exposure to vectors. However, project compliance with existing regulations, policies, plans and guidelines associated with vector control would ensure that significant impacts do not occur. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: COS-6.2, COS-3.1, COS-4.3, COS-5.2, COS-6.3 | None Required | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.8 Hydrology and Water Quality** | | | | | |
| **1. Water Quality Standards and Requirements:** The development of future land uses as designated in the proposed General Plan Update would contribute pollutants that would significantly degrade water quality and in some instances exacerbate existing surface and groundwater pollution conditions in the unincorporated County. Additionally, occupants of the proposed land uses would not have access to quality groundwater supplies due to existing contamination. | Potentially Significant | Potentially Significant | LU-6.5, LU-6.9, LU-14.1, LU-14.2, LU-14.3, LU-14.4, COS-4.2, COS-4.3, COS-4.4, COS-5.2, COS-5.3, COS-5.5 | Hyd-1.1 through Hyd-1.10 | Significant and Unavoidable |
| **2. Groundwater Supplies and Recharge:** At full buildout of land uses designated in the proposed General Plan Update, groundwater supply and recharge impacts would occur in: 1) areas that experience a 50 percent reduction of groundwater in storage; 2) areas that experience supply issues from additional large quantity or clustered groundwater users; 3) areas that experience a high frequency of low well yield; and 4) Borrego Valley. | Potentially Significant | Potentially Significant | LU-8.1, LU-8.2, LU-13.1, LU-13.2, COS-4.1 through COS-4.4, COS-5.2 | Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, and Hyd-2.1 through Hyd-2.5 | Significant and Unavoidable |
| **3. Erosion or Siltation:** Implementation of the General Plan Update would result in increased runoff that has the potential to cause new erosion or worsen existing erosion problems. | Potentially Significant | Less Than Significant | LU-6.5, LU-6.9, COS-5.3 | Hyd-1.2, Hyd-1.3, Hyd-1.5, and Hyd-3.1 through Hyd-3.3 | Less Than Significant |
| **4. Flooding:** Implementation of the General Plan Update would convert permeable surfaces to impermeable surfaces, which have the potential to result in flooding on or off site. | Potentially Significant | Less Than Significant | LU-6.5, LU-610, S-9.2, S-10.2, S-10.3, S-10.4, S-10.6 | Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, Hyd-2.5, and Hyd-4.1 through Hyd-4.3 | Less Than Significant |
| **5. Exceed Capacity of Stormwater Systems:** Implementation of the proposed General Plan Update would exceed the capacity of existing stormwater drainage facilities. | Potentially Significant | Less Than Significant | LU-6.5, LU-6.9, COS-4.3, COS-5.2, S-9.2, S-10.2 through S-10.6 | Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, Hyd-2.5, Hyd-3.1, Hyd-4.1, Hyd-4.2, and Hyd-4.3 | Less Than Significant |
| **6. Housing within a 100-year Flood Hazard Area**: Implementation of the proposed General Plan Update would include land designated for residential land use within a 100-year flood plain. | Potentially Significant | Less Than Significant | LU-6.12, COS-5.1, S-9.1 through S-9.5, S-10.1 | Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, and Hyd-6.1 | Less Than Significant |
| **7. Impeding or Redirecting Flood Flows:** Implementation of the General Plan Update would impede or redirect flood flows. | Potentially Significant | Less Than Significant | LU-6.12, COS-5.1, S-9.1 through S-9.5, S-10.1 | Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, Hyd-4.3, and Hyd-6.1 | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **8. Dam Inundation and Flood Hazards:** Implementation of the proposed General Plan Update would result in inundation risk associated with dam failure. | Potentially Significant | Less Than Significant | COS-5.1, S-9.1 through S-9.3, S-9.6, S-10.1 | Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, Hyd-4.3, Hyd-6.1, Hyd-8.1, and Hyd-8.2 | Less Than Significant |
| **9. Seiche, Tsunami, and Mudflow Hazards:** Implementation of the proposed General Plan Update would result in an increased risk of exposing people or structures to damage in the event of a mudflow. | Potentially Significant | Less Than Significant | COS-5.1, S-8.1, S-8.2, S-9.3, S-9.6 | Hyd-3.1, Hyd-3.2, and Hyd-3.3 | Less Than Significant |
| **2.9 Land Use** | | | | | |
| **1. Physical Division of an Established Community:** Implementation of the proposed General Plan Update would have the potential to result in the physical division of an established community from the construction, expansion or widening of a roadway. | Potentially Significant | Potentially Significant | LU-1.4, LU-2.1, LU-2.3, LU-2.5, LU-4.1, LU-4.2, LU-4.3, LU-4.4, LU-11.2, LU-12.4, M-10.6, M-1.3, H-2.1 | Lan-1.1 through Lan-1.3 | Less Than Significant |
| **2. Conflicts with Land Use Plans, Policies, and Regulations:** Implementation of the proposed General Plan Update would not conflict with applicable land use plans, policies, and regulations. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: LU-6.5, S-15.1, M-12.1, LU-4.1, LU-4.7, LU-14.1 | None Required | Less Than Significant |
| **3. Conflicts with HCPs or NCCPs**: Implementation of the proposed General Plan Update would conflict with any applicable HCP or NCCP. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: COS-1.2, COS-1.3. COS-1.6 though COS-1.10 | None Required | Less Than Significant |
| **2.10 Mineral Resources** | | | | | |
| **1. Mineral Resource Availability:** Implementation of the proposed General Plan Update would have the potential to result in potentially significant impacts associated with the loss of availability of mineral resources. | Potentially Significant | Potentially Significant | COS-10.1 through COS-10.4, COS-10.6, COS-10.8, COS-10.9 | Min-1.1 through Min-1.3 | Significant and Unavoidable |
| **2. Mineral Resources Recovery Sites:** Implementation of the proposed General Plan Update would have the potential to result in significant impacts associated with the loss of locally important mineral resource recovery sites. | Potentially Significant | Potentially Significant | COS-10.1 through COS-10.4, COS-10.6, COS-10.8, COS-10.9 | The mitigation measures identified for Issue 1: Mineral Resource Availability would also reduce impacts to mineral resource recovery sites | Significant and Unavoidable |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.11 Noise** | | | | | |
| **1. Excessive Noise Levels:** Implementation of the proposed General Plan Update would have the potential to expose land uses to noise levels in excess of noise compatibility guidelines. | Potentially Significant | Potentially Significant | LU-2.8, M-1.3, M-2.4, N-1.4, N-1.5, N-2.1, N-2.2, N-4.1, N-4.3, N-4.2, N-4.5, N-4.7, N-4.8 | Noi-1.1 through Noi-1.9 | Less Than Significant |
| **2. Excessive Groundborne Vibration:** Implementation of the General Plan Update would have the potential to affect groundborne vibration sensitive land uses near the Sprinter Rail Line and where construction equipment would operate within vibration-sensitive land uses. | Potentially Significant | Potentially Significant | N-3.1, N-4.7, N-5.2, N-6.3, N-6.4 | Noi- 1.7, Noi-2.1 through Noi-2.4 | Less Than Significant |
| **3. Permanent Increase in Ambient Noise Level:** Implementation of the General Plan Update would permanently increase ambient noise along roadways. | Potentially Significant | Potentially Significant | LU-2.8, M-1.3, M-2.4, N-1.5, N-4.1, N-4.2, N-4.6, N-5.1, N-5.2 | Noi-1.3, Noi-1.4, Noi-1.5, Noi-1.8, Noi-2.3, Noi-2.4, Noi-3.1 and Noi-3.2 | Significant and Unavoidable |
| **4. Temporary Increase in Ambient Noise Level:** Implementation of the General Plan Update would have the potential to temporarily increase ambient noise from construction activity as well as other sources of temporary or nuisance noise. | Potentially Significant | Less Than Significant | N-6.1 through N-6.6 | Noi-4.1 and Noi-4.2 | Less Than Significant |
| **5. Excessive Noise Exposure from a Public or Private Airport:** Implementation of the General Plan Update would have the potential to expose noise sensitive land use to excessive noise from a public or private airport. | Potentially Significant | Potentially Significant | N-4.9, S-15.1, S-15.2, S-15.4 | Noi-5.1 through Noi-5.3 | Less Than Significant |
| **2.12 Population and Housing** | | | | | |
| **1. Population Growth:** Implementation of the proposed General Plan Update would not directly or indirectly induce unplanned population growth. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: LU-1.2, LU-9.4, LU-14.4 | None Required | Less Than Significant |
| **2. Displacement of Housing:** Implementation of the proposed General Plan Update would not displace a substantial amount of housing. | Less Than Significant | Less Than Significant | None Required<br>However, the following policy is applicable to this issue: H-4.1 | None Required | Less Than Significant |
| **3. Displacement of People:** Implementation of the proposed General Plan Update would not displace a substantial amount of people. | Less Than Significant | Less Than Significant | None Required | None Required | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.13 Public Services** | | | | | |
| **1. Fire Protection Services:** Implementation of the proposed General Plan Update would result in a substantial adverse physical impact associated with the provision of new or physically altered fire protection facilities. | Potentially Significant | Less Than Significant | LU-1.4, LU-6.4, LU-6.11, LU-12.3, LU-12.4, S-3.4, S-5.1, S-5.2, S-6.1 through S-6.5 | Pub-1.1 through Pub-1.9 | Less Than Significant |
| **2. Police Protection Services:** Implementation of the proposed General Plan Update would result in the need for new staffing and/or expanded police facilities in order to maintain acceptable response times for police protection services. | Potentially Significant | Less Than Significant | LU-1.4, LU-12.3, LU-12.4 | Pub-1.1, Pub-1.2, and Pub-1.3 | Less Than Significant |
| **3. School Services:** Implementation of the proposed General Plan Update would include residential land use designations that would have the potential to result in the need to construct or expand school facilities that would result in a significant environmental impact. | Potentially Significant | Potentially Significant | LU-1.4, LU-9.7, LU-12.3, LU-12.4, LU-17.1 through LU-17.4, LU-18.2 | Pub-1.1, Pub-1.2, Pub-1.3, Pub-3.1, and Pub-3.2 | Significant and Unavoidable |
| **4. Other Public Services:** Implementation of the proposed General Plan Update would include land use designations that would accommodate an increase in population that would result in new library users and require the construction of new or expanded library facilities. | Potentially Significant | Less Than Significant | LU-1.4, LU-9.4, LU-9.7, LU-12.3, LU-12.4, LU-18.1, LU-18.2 | Pub-1.1, Pub-1.2, and Pub-1.3 | Less Than Significant |
| **2.14 Recreation** | | | | | |
| **1. Deterioration of Parks and Recreational Facilities**: The forecasted increase in population in the County would result in the deterioration of parks and recreational facilities. | Potentially Significant | Potentially Significant | LU-12.1, LU-12.2, M-12.1 through M-12.8, M-12.10, H-2.2, COS-21.1, COS-21.2, COS-22.1, COS-23.1, COS-23.2, COS-24.1, COS-24.2 | Rec-1.1 through Rec-1.11 | Less Than Significant |
| **2. Construction of New Recreational Facilities:** Implementation of the proposed General Plan Update would require the construction or expansion of recreational facilities to accommodate increased demand from forecasted population growth in the unincorporated County. | Potentially Significant | Less Than Significant | LU-6.4, LU-9.7, LU-18.2, M-12.5, M-12.9, M-12.10, H-2.2, COS-21.2, COS-21.3, COS-21.4, COS-23.1, COS-23.3 | Rec-1.1, Rec-1.2, Rec-1.3, Rec-1.4, Rec-1.8, Rec-1.9, Rec-1.12, and Rec-2.1 through Rec-2.6 | Less Than Significant |
| **2.15 Transportation and Traffic** | | | | | |
| **1. Unincorporated County Traffic and LOS Standards:** Implementation of the proposed General Plan Update would result in a total of 158 deficient roadway segments throughout the unincorporated County (approximately 32 State highway segments and 126 Mobility Element segments). | Potentially Significant | Potentially Significant | LU-5.1, LU-10.4, LU-11.8, LU-12.2, M-1.1, M-1.2, M-1.3, M-2.1, M-2.2, M-2.3, M-3.1, M-3.2, M-4.2, M-5.1, M-5.2, M-9.1, M-9.2 | Tra-1.1 through Tra-1.8 | Significant and Unavoidable |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2. Adjacent Cities Traffic and LOS Standards:** Implementation of the proposed General Plan Update would result in 34 roadway segments in adjacent cities that would exceed the LOS standard established by the applicable jurisdiction. | Potentially Significant | Potentially Significant | LU-5.1, LU-10.4, LU-11.8, LU-12.2, M-1.1, M-1.2, M-1.3, M-2.1, M-2.2, M-2.3, M-3.1, M-3.2, M-4.2, M-4.3, M-4.6, M-5.1, M-5.2, M-9.1, M-9.2 | Tra-1.1, Tra-1.2, Tra-1.3, Tra-1.4, Tra-1.6, Tra-1.7, and Tra-2.1 | Significant and Unavoidable |
| **3. Rural Road Safety**: Implementation of the proposed General Plan would result in the adoption of a Mobility Element network that includes existing roadways with horizontal and vertical curves that are sharper than existing standards. Additionally, the proposed General Plan Update may pose an increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns. Implementation of the proposed General Plan Update would also have the potential to result in hazards from at-grade rail crossings. | Potentially Significant | Potentially Significant | LU-2.8, LU-6.10, M-4.3, M-4.4, M-4.5, M-9.1 | Tra-1.3, Tra-1.4, Tra-1.7, and Tra-3.1 | Significant and Unavoidable |
| **4. Emergency Access:** Under the proposed General Plan Update, existing inadequate roadway widths, dead end roads, one-way roads, and gated communities would continue to occur in the unincorporated County, all of which have the potential to impair emergency access. | Potentially Significant | Less Than Significant | LU-2.8, LU-6.10, LU-12.2, M-1.2, M-3.3, M-4.4, S-3.4, S-3.5, S-14.1 | Tra-1.3, Tra-1.4, Tra-1.7, Tra-4.1 through Tra-4.4 | Less Than Significant |
| **5. Parking Capacity:** Implementation of the proposed General Plan Update would designate land uses throughout the unincorporated County that would require the development of parking facilities. All future development of parking facilities associated with these land uses would be required to follow existing parking standards and requirements, such as the County's Zoning Ordinance and roadway standards. However, the land uses proposed under the General Plan Update may require modifications to existing County parking regulations. | Potentially Significant | Less Than Significant | M-8.6, M-9.3, M-9.4, M-10.1 through M-10.4 | Tra-1.4, Tra-1.5, Tra-5.1, Tra-5.2 | Less Than Significant |
| **6. Alternative Transportation:** Implementation of the proposed General Plan Update would create provisions for alternative modes of transportation, including bike lanes, bus stops, trails, and sidewalks. Many policies proposed in the General Plan Update would require coordination between the County and the agencies responsible for public transportation planning; however, existing alternative transportation plans and policies may require modification to be consistent with the goals and policies contained in the General Plan Update. | Potentially Significant | Less Than Significant | LU-5.1, LU-5.4, LU-5.5, LU-9.8, LU-11.6, M-3.1, M-3.2, M-4.3, M-8.1 through M-8.7, M-8.8, M-9.2, M-9.4, M-11.1 through M-11.7 | Tra-5.1, Tra-5.2, and Tra-6.1 through Tra-6.9 | Less Than Significant |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **2.16 Utilities and Service Systems** | | | | | |
| **1. Wastewater Treatment Requirements:** The development of future land uses as designated in the proposed General Plan Update would result in the demand for wastewater treatment services to increase at a rate disproportionate to facility capabilities, which would result in a violation in wastewater treatment standards. | Potentially Significant | Less Than Significant | LU-9.4, LU-12.1, LU-12.2, LU-14.1 through LU-14.4 | USS-1.1 through USS-1.3 | Less Than Significant |
| **2. New Water of Wastewater Treatment Facilities**: The development of future land uses as designated in the proposed General Plan Update would increase the demand for water and wastewater services, thereby requiring the construction of new facilities. | Potentially Significant | Less Than Significant | LU-1.2, LU-4.3, H-1.3 | USS-2.1 through USS-2.3 | Less Than Significant |
| **3. Sufficient Stormwater Drainage Facilities:** The development of future land uses as designated under the proposed General Plan Update would require the construction of new stormwater facilities if existing facilities are not sized adequately to handle increased runoff flows. | Potentially Significant | Less Than Significant | LU-6.5, LU-6.9, COS-4.3 | USS-3.1 through USS-3.5 | Less Than Significant |
| **4. Adequate Water Supplies:** The development of future land uses as designated in the proposed General Plan Update could result in development with an inadequate water supply. | Potentially Significant | Potentially Significant | LU-8.1, LU-8.2, LU-13.1, LU-13.2, COS-4.1 through COS-4.4, COS-5.2, COS-5.5 | USS-4.1 through USS-4.7 | Significant and Unavoidable |
| **5. Adequate Wastewater Facilities:** The development of future land uses as designated in the proposed General Plan Update would generate additional demand on the existing wastewater system that may result in inadequate capacity to serve the projected demand. | Potentially Significant | Less Than Significant | LU-4.3 | The mitigation measures identified for Issue 1: Wastewater Treatment Requirements would also mitigate impacts to adequate wastewater facilities | Less Than Significant |
| **6. Sufficient Landfill Capacity:** The development of future land uses as designated in the proposed General Plan Update has the potential to be served by a landfill with insufficient capacity to accommodate the solid waste disposal needs. | Potentially Significant | Potentially Significant | LU-12.1, LU-12.2, LU-16.1, LU-16.2, LU-16.3, COS-17.1 through COS-17.4, COS-17.6, COS-17.7 and COS-17.8 | USS-6.1 through USS-6.8 | Significant and Unavoidable |

**Table S-1 (Continued)**

| Issue Topic | Potential Direct Impact | Potential Cumulative Impact | Proposed General Plan Update Policies[(1)] | Mitigation Measure(s)[(1)] | Impact After Mitigation |
|---|---|---|---|---|---|
| **7. Solid Waste Regulations:** The development of future land uses as designated in the proposed General Plan Update would be required to comply with federal, State and local statues and regulations related to solid waste. | Less Than Significant | Less Than Significant | None Required<br>However, the following policies are applicable to this issue: LU-12.1, LU-12.2, LU-16.1, LU-16.2, LU-16.3, COS-17.1 through COS-17.4, COS-17.7 through COS-17.8 | None Required | Less Than Significant |
| **8. Energy:** The development of future land uses as designated in the proposed General Plan Update would require energy facilities to be constructed or expanded, which would have the potential to result in significant environmental effects. | Potentially Significant | Potentially Significant | COS-14.7, COS-15.1 through COS-15.5 | USS-8.1 through USS-8.4 | Less Than Significant |
| **2.17 Global Climate Change** | | | | | |
| **1. Compliance With AB 32:** By the year 2020, GHG emissions are projected to increase to 7.1 MMT CO2e (from 5.3 MMT CO2e in 1990) without incorporation of any GHG-reducing policies or mitigation measures.. This amount represents an increase of 24 percent over 2006 levels, and a 36 percent increase from estimated 1990 levels. | Potentially Significant | Potentially Significant | COS-10.7, COS-15.1, COS-15.2, COS-15.3, COS-17.1, COS-17.5, COS-18.2, COS-20.1, COS-20.2, COS-20.4 | CC-1.1 through CC-1.19 | Less Than Significant |
| **2. Potential Effects of Global Climate Change on the Proposed General Plan Update:** Climate change impacts that would be most relevant to the unincorporated County, and the proposed General Plan Update, include effects on water supply, wildfires, energy needs, and impacts to public health. | Potentially Significant | Potentially Significant | The General Plan Update policies identified for Issue 1: Compliance with AB 32 would also reduce potential effects of global climate change on the proposed General Plan Update | The mitigation measures identified for Issue 1: Compliance with AB 32 would also mitigate potential effects of global climate change on the proposed General Plan Update | Less Than Significant |

[(1)] Refer to Chapter 7.0 for complete General Plan Update policies and mitigation measures.

## Table S-2. Summary of Analysis for Alternatives to the General Plan Update

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.1 Aesthetics** | | | | | | |
| Scenic Vistas | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Scenic Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Visual Character or Quality | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Lighting and Glare | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.2 Agricultural Resources** | | | | | | |
| Conversion of Agricultural Resources | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Land Use Conflicts | PS | LS | — | — | — | ○ |
| Indirect Conversion of Agricultural Resources | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.3 Air Quality** | | | | | | |
| Air Quality Plans | LS | LS | — | — | — | — |
| Air Quality Violations | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Non-attainment of Criteria Pollutants | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Sensitive Receptors | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Objectionable Odors | LS | LS | — | — | — | — |
| **2.4 Biological Resources** | | | | | | |
| Special Status Plant and Wildlife Species | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Riparian Habitat and Other Sensitive Natural Communities | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Federally Protected Wetlands | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Wildlife Movement Corridors and Nursery Sites | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Local Policies and Ordinances | LS | LS | — | — | — | — |
| Habitat Conservation Plans and Natural Community Conservation Plans | LS | LS | — | — | — | — |
| **2.5 Cultural Resources** | | | | | | |
| Historical Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Archaeological Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Paleontological Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Human Remains | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.6 Geology and Soils** | | | | | | |
| Exposure to Seismic Related Hazards | LS | LS | — | — | — | — |
| Soil Erosion or Topsoil Loss | LS | LS | — | — | — | — |
| Soil Stability | LS | LS | — | — | — | — |
| Expansive Soils | LS | LS | — | — | — | — |
| Waste Water Disposal Systems | LS | LS | — | — | — | — |
| Unique Geologic Features | LS | LS | — | — | — | — |

**Table S-2 (Continued)**

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.7 Hazards and Hazardous Materials** | | | | | | |
| Transport, Use, and Disposal of Hazardous Materials | LS | LS | — | — | — | — |
| Accidental Release of Hazardous Materials | LS | LS | — | — | — | — |
| Hazards to Schools | LS | LS | — | — | — | — |
| Existing Hazardous Materials Sites | LS | LS | — | — | — | — |
| Public Airports | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Private Airports | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Emergency Response and Evacuation Plans | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Wildland Fires | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Vectors | LS | LS | — | — | — | ▲ |
| **2.8 Hydrology and Water Quality** | | | | | | |
| Water Quality Standards and Requirements | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Groundwater Supplies and Recharge | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Erosion or Siltation | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Flooding | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Exceed Capacity of Stormwater Systems | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Housing within a 100-year Flood Hazard Area | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Impeding or Redirecting Flood Flows | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Dam Inundation and Flood Hazards | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Seiche, Tsunami, and Mudflow Hazards | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.9 Land Use** | | | | | | |
| Physical Division of an Established Community | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Conflicts with Land Use Plans, Policies, and Regulations | LS | LS | — | — | — | ▲ |
| Conflicts with HCPs or NCCPs | LS | LS | — | — | — | — |
| **2.10 Mineral Resources** | | | | | | |
| Mineral Resource Availability | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Mineral Resource Recovery Sites | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.11 Noise** | | | | | | |
| Excessive Noise Levels | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Excessive Groundborne Vibration | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Permanent Increase in Ambient Noise Levels | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Temporary Increase in Ambient Noise Levels | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Excessive Noise Exposure from a Public or Private Airport | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.12 Population and Housing** | | | | | | |
| Population Growth | LS | LS | — | — | ▲ | — |
| Displacement of Housing | LS | LS | — | — | — | — |
| Displacement of People | LS | LS | — | — | — | — |

**Table S-2 (Continued)**

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.13 Public Services** | | | | | | |
| Fire Protection Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Police Protection Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| School Services | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Other Public Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.14 Recreation** | | | | | | |
| Deterioration of Parks and Recreational Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Construction of New Recreational Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **4.15 Transportation and Traffic** | | | | | | |
| Unincorporated County Traffic and Level of Service Standards | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Adjacent Cities Traffic and Level of Service Standards | PS | SU | ▼ | ▼ | ▼ | ▼ |
| Rural Road Safety | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Emergency Access | PS | LS | — | — | — | — |
| Parking Capacity | PS | LS | — | — | — | ○ |
| Alternative Transportation | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.16 Utilities and Service Systems** | | | | | | |
| Wastewater Treatment Requirements | PS | LS | ▼ | ▼ | ▼ | ▲ |
| New Water or Wastewater Treatment Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Sufficient Stormwater Drainage Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Adequate Water Supplies | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Adequate Wastewater Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Sufficient Landfill Capacity | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Solid Waste Regulations | LS | LS | — | — | — | — |
| Energy | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.17 Global Climate Change** | | | | | | |
| Compliance with AB 32 | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Effects of Global Climate Change on the Proposed Project | PS | LS | ▼ | ▼ | ▼ | ▲ |

▲ Alternative is likely to result in greater impacts to issue when compared to proposed project
— Alternative is likely to result in a similar impacts to issue when compared to proposed project
▼ Alternative is likely to result in less impacts to issue when compared to proposed project, however, impacts would still be significant before mitigation.
○ Alternative is likely to result in less impacts to issue when compared to proposed project and impacts would likely be less than significant and not require mitigation.
PS Potentially significant impact
LS Less than significant impact
SU Potentially significant and unavoidable impact

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# CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

## 1.1 Introduction

The County of San Diego General Plan Update is the first comprehensive update of the General Plan since the 1970s. The General Plan Update, which applies to all unincorporated portions of San Diego County, will direct population growth and plan for infrastructure needs, development, and resource protection. The General Plan Update will guide the growth and development of the unincorporated County of San Diego using innovative planning principles designed to create livable communities and balance environmental objectives with the needs of adequate infrastructure, housing, agriculture, and economic viability. The update will focus population growth in the western areas of the County where infrastructure and services are available thereby reducing the potential for growth in the eastern areas. The objectives of this population distribution strategy are to: 1) facilitate efficient, orderly growth by containing development within areas potentially served by the San Diego County Water Authority (SDCWA) and in proximity to existing infrastructure; 2) protect natural resources through the reduction of population capacity in sensitive areas; 3) reduce overall vehicle miles traveled and the associated greenhouse gas emissions that contribute to Climate Change; and 4) retain or enhance the character of communities within the unincorporated County.

## 1.2 State Requirements

The requirement for a General Plan is established by State law requiring jurisdictions to "adopt a general plan for the physical development of the county…" (Government Code Section 65300). State guidelines provide direction regarding the preparation and content of the General Plan. There are seven mandatory elements for general plans, which are Land Use, Circulation (Mobility), Housing, Conservation, Open Space, Noise, and Safety. The proposed General Plan Update contains six elements because the Conservation and Open Space components have been combined into one element. The General Plan is part of a regulatory framework that includes federal and State laws, regional and inter-regional plans, community plans, and other County policies and ordinances.

## 1.3 Project Objectives

The General Plan Update is based on a set of ten interrelated principles (objectives) that provide guidance for accommodating future growth while retaining and enhancing the County's rural character, economy, and unique communities, as well as minimizing the environmental impacts of future development. These principles serve as the proposed project objectives.

The proposed General Plan Update would:

1. Support a reasonable share of projected regional population growth.

2. Promote sustainability by locating new development near existing infrastructure, services, and jobs.

3. Reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment, and recreational opportunities.

4. Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance.

5. Ensure that development accounts for physical constraints and the natural hazards of the land.

6. Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns.

7. Maintain environmentally sustainable communities and reduce greenhouse gas (GHG) emissions that contribute to climate change.

8. Preserve agriculture as an integral component of the region's economy, character, and open space network.

9. Minimize public costs of infrastructure and services and correlate their timing with new development.

10. Recognize community and stakeholder interests while striving for consensus.

## 1.4 Regional Location and Characteristics

### 1.4.1 Location

As shown in Figure 1-1, the County of San Diego is located in the southwestern corner of California and encompasses approximately 2.9 million acres. The County includes 18 incorporated cities and the remainder of the County is unincorporated. The unincorporated County encompasses approximately 2.3 million acres. It is bordered by Riverside and Orange Counties to the north; Imperial County to the east; the Country of Mexico to the south; and 18 incorporated jurisdictions and the Pacific Ocean to the west. The incorporated cities within the County include the following: Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista. The unincorporated portion of the County is divided into 24 planning areas, as shown in Figure 1-2. Fifteen of the planning areas are referred to as Community Planning Areas (CPAs) and nine areas are called Subregional Planning Areas (Subregions). The CPAs are Alpine, Bonsall, County Islands, Fallbrook, Julian, Lakeside, Pendleton/De Luz, Pepper Drive/Bostonia, Rainbow, Ramona, San Dieguito, Spring Valley, Sweetwater, Valle de Oro, and Valley Center. The nine Subregions are Central Mountain, Crest/Dehesa/Harbison Canyon/Granite Hills, Desert, Jamul/Dulzura, Mountain Empire, North County Metropolitan (Metro), North Mountain, Otay, and Pala/Pauma Valley. Pepper Drive/Bostonia will be merged into the Lakeside CPA with the adoption of the General Plan Update to reduce the total to 23 planning areas. For the purpose of this EIR, Pepper Drive/Bostonia is included in the Lakeside CPA. In some cases, Subregions are further divided by planning sponsor group areas where a group has been formed pursuant to County policy to represent a specified area. These CPAs and Subregions are described in detail in Section 2.1, Aesthetics, and Section 2.9, Land Use.

The northwest and southwest areas of the unincorporated County are more developed than the eastern areas and most new development is directed toward these more developed areas. Northwest CPAs and Subregions include Pala/Pauma Valley Subregion, Fallbrook CPA, Rainbow CPA, Pendleton/De Luz CPA, Valley Center CPA, North County Metro Subregion, Bonsall CPA, and San Dieguito CPA. Southwest CPAs and Subregions include Ramona CPA, Lakeside CPA, Spring Valley CPA, Sweetwater CPA, Valle de Oro CPA, Alpine CPA, Crest/Dehesa/Harbison Canyon/Granite Hills Subregion, Jamul/Dulzura Subregion, Otay Subregion, and County Islands CPA. The backcountry, or remaining area in the eastern portion of the unincorporated County, is predominantly undeveloped and is subject to more environmental constraints to development. The backcountry includes the Julian CPA and the Central Mountain, Desert, Mountain Empire, and North Mountain Subregions.

## 1.4.2 Area Characteristics

The common characteristics of the land, from topography to infrastructure, are key factors that determine what development patterns are most appropriate for particular portions of the San Diego region. On average, the unincorporated areas of the County are more highly constrained, with more rugged terrain, more occurrences of sensitive species, and less opportunities to provide essential services. A majority of the land in the unincorporated County is open space or undeveloped, while the majority of land in the incorporated cities is developed. In addition, several large federal, State, and regional parks encompass much of the eastern portion of the unincorporated County.

San Diego County is a diverse region with a dramatic coastline, mountains, and desert. The County's sunny weather allows people to spend much of their time outside throughout the year. For this reason, people come from all over the world to enjoy the County's resources. The County is rich in natural open space, unique topographic features, and other natural resources. Its varied topography, semi-arid (Mediterranean) and arid (desert) climates, and geology make it one of the most biologically diverse regions in the continental United States (U.S.). San Diego County has three distinctive geographic regions that are, from west to east, the low-lying Coastal Plain, the mountainous Peninsular Range, and the desert Salton (Imperial) Basin. The unique resources and land uses of each of these regions are described in greater detail in the context of the environmental topics discussed in Chapter 2.0, including Sections 2.1 (Aesthetics), 2.4 (Biology), and 2.9 (Land Use).

## 1.4.3 Technical, Economic, and Environmental Characteristics

The General Plan Update is a comprehensive plan covering approximately 807,000 acres of privately owned unincorporated land within 23 CPAs and Subregions. Therefore, many technical aspects were considered in developing the General Plan Update elements, including existing land use patterns and intensity, circulation needs, potential hazards and safety risks, natural resources and visual features, housing needs, and potential noise sources.

Economic considerations for the proposed project included development of a land use map for the County that is designed to encourage unique and thriving communities. As described above in Section 1.3, one of the project objectives of the General Plan Update is to reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment, and recreational opportunities. Central to the land use concept for unincorporated San Diego County is a development pattern that balances the land requirements

of residential growth with those of commerce, agriculture, recreation, and wildlife habitats. This development pattern concept directs future growth to areas where existing or planned infrastructure and services can support growth and to locations within or adjacent to existing communities.

## 1.5 Environmental Setting

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the proposed project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for the General Plan Update EIR was published on April 28, 2008. However, the CEQA Guidelines and applicable case law recognize that the date for establishing an environmental baseline cannot be rigid. Physical environmental conditions vary over a range of time periods; thus the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate when conducting the environmental analysis. The environmental topic sections rely on a variety of data to establish an applicable baseline. In sections such as agricultural resources, biological resources, cultural resources, mineral resources, and population and housing, available data was months and sometimes several years old and, therefore, assumptions in how those conditions might have changed since the data was prepared are also discussed. Table 1-13 provides the environmental baseline for each issue analyzed in this EIR. The environmental setting for each environmental issue is further explained in the beginning of each section of Chapter 2.0 and in the corresponding technical reports.

## 1.6 Summary of Proposed Project Components

The proposed project includes an update of the General Plan, as well as several other components described below, all of which address future growth and development in the unincorporated County and are evaluated in this EIR. The General Plan Update will replace the existing General Plan, including all of the elements, a corresponding proposed land use map (Figure 1-3), and a Mobility Element roadway network map (Figures 1-4 through 1-6). Updates to all community and subregional plans are also part of the proposed project. An Implementation Plan has been prepared as a component of the proposed project that sets forth an action plan by which the goals and policies of the General Plan Update will be implemented. Additionally, the proposed project includes adjustments to CPA boundaries and identifies items that must be changed within a reasonable timeframe following plan adoption to maintain consistency between the General Plan and County ordinances or policies. Other project components include items that must be updated such as specific plans; the San Diego County Zoning Ordinance; County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO); other County ordinances; and Board of Supervisor's (BOS) policies. Agricultural preserves will also be modified to include only lands under Williamson Act Contracts, as described in Section 2.2, Agriculture Resources. Additional information regarding the updated General Plan land use map and elements is described in Section 1.7. The additional components of the proposed project are described further in Section 1.8.

## 1.7 Update to Existing General Plan

As discussed above, the General Plan for the unincorporated County has not been comprehensively updated since 1979 and has been the subject of substantial modification over the past 30 years. During this period, considerable growth and change has taken place, leading to the incorporation of a number of cities and annexation of lands on the periphery of the unincorporated area.

The update to the existing General Plan includes revisions to the General Plan elements, which set the goals and policies that guide future development in order to minimize environmental and other impacts of growth in the unincorporated County. The revised General Plan elements are discussed below.

### 1.7.1 General Plan Elements

The General Plan Update consists of six elements: Land Use, Mobility, Housing, Conservation and Open Space, Safety, and Noise. Generally, each element begins with an introduction that states the purpose and scope of the element, guiding principles for the element, and how the element relates to the other General Plan elements. Next, the framework or background information for development of the element is described. The goals and policies are organized into topics. The context of each topic is described, and then the goals and policies that address this issue are listed. The goals and policies were prepared in consideration of the project objectives identified for the proposed project in order to guide future development and minimize adverse impacts of growth.

The following sections briefly describe each General Plan Update element. All of the goals and policies included in the General Plan Update are provided on the General Plan Update website: http://www.sdcounty.ca.gov/dplu/gpupdate/

#### *1.7.1.1 Land Use*

The Land Use Element provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources. The Land Use Element consists of maps, goals, and policies that guide the future pattern of development for the unincorporated County. The land use framework contains regional categories that broadly define land use designations that describe in greater detail land use types, housing densities, and development intensities. This framework provides a link between the project objectives and the proposed land use map. The proposed land use map illustrates the distribution of land uses consistent with the allowable housing density and development intensity ranges identified in the framework.

**Regional Categories and Land Use Designations**

The General Plan Update land use framework includes three regional categories: village, semi-rural, and rural lands. These categories broadly reflect the different character and land use development goals of the County's developed areas, from lower density residential and agricultural areas, to very low density or undeveloped rural lands. The highest land use intensities and greatest mix of uses are directed to **village** areas, while lower intensity uses,

such as estate-style residential lots and agricultural operations, are directed to **semi-rural** areas. The semi-rural category also serves as a buffer to the village category, as well as a transition to the lowest density category of **rural lands**, which represents large open space areas where only limited development would occur. As a broad set of development classifications, the regional categories do not specify allowable land uses, but rather the general regional structure, character, scale, and intensity of development. They do not regulate allowed uses or intensities of individual development proposals. Instead, they are intended to provide a structure for the location of the specific land use designations that define allowed type and intensity of uses.

The General Plan Update land use designations identify the type and intensity of land uses that would be allowed under the General Plan Update. The land use designations are defined by the land use type (residential, commercial, or industrial) and the maximum allowable residential density or nonresidential building intensity. **Residential density** is expressed as a maximum number of dwelling units per gross acre (exclusive of public roads and right-of-way). **Nonresidential building intensity** is expressed as a maximum floor-area ratio (FAR). FAR is the ratio of the gross building square footage on a lot to the net square footage of the lot or parcel. For example, on a lot with 10,000 net square feet of land area, an FAR of 1.00 will allow 10,000 square feet of gross building area, regardless of the number of stories in the building. The designations are applied throughout the unincorporated County through the proposed land use map, as shown in Figure 1-3.

Seventeen residential land use designations have been identified in the Land Use Element to provide for a full range of housing types, from village multi-family housing to rural single-family housing. Nine village residential designations are identified ranging from 2 to 30 dwelling units per acre. Areas designated village residential are generally already served by municipal sewer and water systems. Four semi-rural designations are identified ranging from 1 dwelling unit per 1 acre, to 1 dwelling unit per 10 acres. Residential development within semi-rural areas is not typically served by municipal sewer systems, but is often served by municipal water systems, especially where water-intensive crops such as avocado and citrus are common. Four rural lands designations are identified ranging from 1 dwelling unit per 20 acres to 1 dwelling unit per 80 acres. The densities allowed under these designations are the lowest in the unincorporated County, and are intended to preserve the rural agricultural, environmentally constrained, and natural backcountry areas of the County.

Eight non-residential land use designations provide for commerce and employment in the unincorporated County. Commercial designations allow for a wide range of retail activities and services. Depending on the intensity of surrounding land use designations, this could include regional shopping centers, community shopping centers, strip development, or small-scale retail sales. The village core mixed use designation is intended for pedestrian-scaled town center development. A wide variety of commercial, civic, and residential uses are encouraged by this designation. The office professional designation provides areas dedicated to administrative and professional services as well as limited retail uses related to or serving the needs of the primary office uses. Industrial designations identify areas where industrial development may take place. These designations include limited-impact industrial, medium-impact industrial, and high-impact industrial. Typical uses within these designations include manufacturing, processing, assembly, warehousing and distribution, and large equipment supply and sales.

Eight additional land use designations are applied in the General Plan Update to recognize other existing land use types and jurisdictions. The following three designations generally relate

to the provision of public facilities, protection of open space resources, or to serve recreational needs: public and semi-public facilities, open space-conservation, and open space-recreation. The Specific Plan area designation is applied to areas where specific plans have been adopted. Two other designations (tribal lands, and federal and State lands) identify areas where the County has no land use jurisdiction. The Forest Conservation Initiative (FCI) Lands designation applies to lands affected by the FCI of 1993. This initiative mandated specific land use designations, goals, and policies which were in effect through December 31, 2010. The General Plan must be amended to remap the former FCI lands in conformance with the General Plan Update. This is discussed in further detail in Section 2.9, Land Use.

**Proposed Land Use Map**

The proposed land use map, Figure 1-3, identifies the distribution of the General Plan Update land use designations. As discussed above, the land use designations are property specific and identify the type and intensity of land uses that are allowed within a given designation. The development of the proposed land use map is described in Section 1.12.2, History of Project Development.

During the past decade, competition for land has been fueled by the County's population growth in combination with a demand to accommodate the region's housing, commerce, agriculture, recreation, and wildlife habitat needs. The County addressed this problem by developing a land use map that favors more efficient development by accommodating more residential growth on less land. In order to reduce competing interests for land, the General Plan Update shifts development densities to the northwest and southwest areas of the County, where water and public services can be made available to support the population. By shifting density to the more urbanized western areas, opportunities for agriculture, recreation and wildlife protection are preserved in the eastern areas. As shown in Figure 1-3, higher density land use designations, such as village residential and industrial, are concentrated in the western CPAs and Subregions. The eastern backcountry communities generally contain more rural land and semi-rural residential designations as well as federal and State lands and local park land.

As shown in Table 1-1, the land use designations with the greatest amount of acreage in the unincorporated County are federal and State Lands (871,504 acres) or rural lands (500,602 acres). These land uses are designated primarily in the backcountry communities, including the Central Mountain, Mountain Empire, North Mountain, and Desert Subregions. The land use designations with the least amount of acreage are village core mixed use (227 acres) and office professional (239 acres). Village core mixed use is only designated in the Valley Center, San Dieguito, Alpine, and Fallbrook CPAs. Office professional land uses are primarily found in the northwestern and southwestern communities, including the North County Metro Subregion (66 acres) and Valle de Oro CPA (24 acres), though the Desert Subregion is also designated for 27 acres of office professional land uses. Village residential land uses are primarily designated in the western portion of the County where growth either already exists or is planned, such as the North County Metro CPA (6,116 acres), Lakeside CPA (5,701 acres), and Valle de Oro CPA (5,295). However, village residential is also designated around town centers in the eastern County areas, including the Borrego Springs community in the Desert Subregion (2,594 acres) and the Pine Valley community in the Central Mountain Subregion (572 acres). Semi-rural residential and commercial land use designations occur throughout the unincorporated County in every planning area except the Otay Subregion and the County Islands and Pendleton/De Luz CPAs. Industrial land use designations are dispersed throughout the County in several planning areas, primarily the Lakeside CPA (1,307 acres), the Tecate community in the

Mountain Empire Subregion (346 acres), and the Spring Valley CPA (284 acres). The majority of land designated as open space, including both conservation and recreational open space, is found in the eastern areas, especially in the North Mountain, Mountain Empire, Jamul/Dulzura, and Desert Subregions. Military installations are only designated within the Pendleton/De Luz CPA, which is the location of Marine Corps Base Camp Pendleton. Tribal lands are located within several communities throughout the County, including the North Mountain Subregion (49,001 acres), Mountain Empire Subregion (28,493 acres), and Pala/Pauma Valley Subregion (21,851 acres).

### *1.7.1.2 Housing*

The State of California identifies the provision of decent and affordable housing for every Californian as a statewide goal. This Housing Element strives to support that goal through appropriately designated land for developing a variety of housing types, and through policies and programs designed to assist the development of housing for all income levels and special needs. This Housing Element covers the planning period of July 1, 2005 through June 30, 2010. In accordance with State law, the Housing Element is updated every five years.

The Housing Element seeks to balance housing requirements with infrastructure deficiencies, safety issues, and the rural character of many of the County's unincorporated communities. It also seeks to reconcile housing needs with competing land use interests.

As part of the 2005-2010 Housing Element cycle, the County is allocated a share of the region's housing needs that is equivalent to 12,358 units. The County must, through appropriate zoning and development standards, accommodate these units through a variety of housing types and for various income groups.

Pursuant to State Housing Element law (Section 65580) of the Government Code, the Housing Element must contain local commitments to:

- Provide sites with appropriate zoning and development standards and with services and facilities to accommodate the jurisdiction's Regional Housing Needs Allocation for each income level.
- Assist in the development of adequate housing to meet the needs of lower and moderate income households.
- Address and, where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for persons with disabilities.
- Conserve and improve the condition of the existing affordable housing stock.
- Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve assisted housing developments for lower income households.

State Housing Element law mandates specific topics and issues that must be addressed in the Housing Element. These include:

- An analysis of population and employment trends, documentation of projections, and quantification of existing and projected housing needs for all income levels.
- An analysis and documentation of household characteristics, such as the age of housing stock, tenancy type, overcrowded conditions, and the level of payment compared to ability to pay.
- An analysis and documentation of special needs, such as female-headed households, homeless individuals, persons with disabilities, large households, farmworkers, and the elderly.
- A regional share of the total regional housing need for all income categories.
- An inventory of land suitable for residential development, including vacant land and infill/redevelopment opportunities. This analysis also looks at potential residential sites and their accessibility to adequate infrastructure and services.
- Identifying actual and potential governmental and non-governmental constraints that could potentially impede the maintenance, improvement, and development of housing for all income groups.
- Identifying and analyzing opportunities for energy conservation in residential developments.
- An inventory of at-risk affordable units that have the possibility of converting to market rate.
- A statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the improvement, maintenance, and development of housing.

State law requires that adequate opportunity for participation be solicited from all economic segments of the community towards preparation of the Housing Element. Specifically, the jurisdiction must reach out to lower and moderate income persons and persons with special needs. In addition to meeting this requirement, the County also coordinated with other local jurisdictions and agencies within the regional housing market area, such as SANDAG, during the preparation of the Housing Element.

### *1.7.1.3 Mobility*

The purpose of the Mobility Element is to facilitate the provision of a balanced, multi-modal transportation system for the unincorporated portion of San Diego County. A balanced system uses all modes of travel including motor vehicle, public transportation, bicycle, pedestrian, and to a lesser extent, rail and air transportation. While the automobile is the primary mode of choice for travel in the unincorporated County, opportunities to increase the use of alternative transportation modes need to be identified and promoted.

The Mobility Element includes a description of the County's transportation network, the goals and policies that address the safe and efficient operation, maintenance, and management of the transportation network, and the Mobility Element Network Appendix, which depicts in map and matrix format the location of road network components. As shown in Figures 1-4 through 1-6, the Mobility Element identifies an ultimate roadway network in which future right-of-way can be preserved for future roadway purposes. This network, much of which currently exists, will be developed in the unincorporated County during the implementation of this General Plan. Functional road classifications specify design criteria and the width of the corridor to be

protected. The Mobility Element road network map includes County roads and State highways in the unincorporated County that form the backbone of a regional network providing movement within and between communities. Interstate highways are also shown on the Mobility Element road network map, but as with State highways, they are managed and maintained by Caltrans. While the Mobility Element road network map also indicates roadway classifications within city limits, the County does not have jurisdiction in the cities. When applicable, the Mobility Element road network has been coordinated with adjacent cities and Caltrans to ensure consistency when feasible.

The road network map identifies County roads and State highways that form the regional backbone of a network providing vehicular movement within and between communities. The proposed road network includes general road alignments and road types (two, four, or six lanes) for both State and County facilities. One important objective of the General Plan Update road network planning effort was to develop a road network that is efficiently and adequately correlated with the planned land uses on the proposed land use map. The proposed road network includes 4,343 lane miles of State highway, County Mobility Element roads, and local public roads, which is 835 lane miles more than the existing condition. The existing roadway network includes 453 lane miles of State highway, 2,642 lane miles of County Mobility Element roads, and 413 lane miles of local public roads, for a total of 3,508 lane miles in the unincorporated County. The proposed project roadway network would have 613 lane miles of State highway, 3,027 lane miles of County Mobility Element roads, and 703 lane miles of local public roads, for a total of 4,343 roadway lane miles. Under the proposed General Plan Update, approximately 835 additional lane miles of road would be necessary to support the future development of the proposed land use map, the construction of which would impact approximately 14,700 acres of land through a combination of roadway widening and new road construction.

The number and type of roads varies dramatically between the eastern backcountry communities, where the road network is primarily a collection of two-lane roads, and the northwest and southwest communities, which contain a dense network of two, four, and six lane roads. In backcountry communities, Mobility Element roads are primarily State highways such as SR-78 that connect widely spaced villages and represent a critical component of the circulation plan. In the northwest and southwest communities, County arterials support higher intensity residential, commercial, and industrial development within each community.

The proposed road network enables the County to reserve right-of-way for major road improvements to State facilities. Planned roadway improvements for State routes in the Reasonably Expected Revenue scenario of the SANDAG 2030 Regional Transportation Plan (RTP) for the unincorporated County include SR-76 in Fallbrook and SR-67 in Lakeside.

The Mobility Element road network was developed through a combination of physical and environmental conditions, community input, and SANDAG traffic model forecasts based on full build-out of the General Plan land use map. When physical and other constraints precluded constructing roads to the number of lanes required to accommodate traffic with a level of service (LOS) of D or better, exceptions were made to accept a road operating at LOS E and F, according to the SANDAG traffic model forecasts. It should be noted that these exceptions were coordinated with the applicable community planning and sponsor groups. The SANDAG traffic model used 2030 projections for build-out of the regional transportation network (freeways, State highways, and transit facilities) and the road networks and land use plans for incorporated jurisdictions. The Mobility Element traffic model intends to provide a road network

consistent with the transportation needs of growth accommodated by the General Plan Update, while considering existing patterns of development and the physical and environmental constraints of the surrounding areas.

### *1.7.1.4 Safety*

The purpose of the Safety Element is to include safety considerations in the planning and decision-making process. The primary intent of the Safety Element is to establish policies related to future development that will minimize the risk of personal injury, loss of life, property and environmental damage associated with natural and man-made hazards. As a required element of the General Plan under Section 65302(g) of the California Government Code, the Safety Element identifies San Diego County's natural hazards and human activities that may pose a threat to public safety within the following topic areas:

- **Wildfires.** The policies in this section focus on minimizing the impact of wildfires through land use planning techniques and other measures and provide a framework that supports previously implemented programs and policies.

- **Geological and Seismic Hazards.** The purpose of this section is to reduce landslide hazards to public health and safety, and to include land use policies that serve to avoid development in hazardous areas or require engineering solutions that mitigate dangers to proposed structures and to off-site lands.

- **Flooding.** The policies in this section discourage future development from locating within a floodplain and seek to reduce flooding by constructing drainage facilities or using other design measures to mitigate hazards.

- **Hazardous Materials.** The policies in this section limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources.

- **Law Enforcement.** The purpose of the policies in the section is to establish adequate law enforcement facilities, create safe communities, and prevent crime.

- **Airport Hazards.** The policies in this section would protect public safety and ensure that future land uses remain compatible with airport operations.

The Safety Element provides policy direction that supports existing laws and ordinances related to safety hazards as well as policies that support the guiding principles established for this General Plan Update.

### *1.7.1.5 Conservation and Open Space*

The primary focus of the Conservation and Open Space Element is to provide direction to balance the accommodation of future growth and development in the unincorporated County of San Diego with the conservation, management, and utilization of natural resources; the protection and preservation of open space; and the provision of park and recreation resources. Population growth and development continually require the use of both renewable and

nonrenewable resources. Goals and policies provided in this General Plan Update element are divided into nine sections that address the following:

- **Biological Resources.** This section identifies land use-based conservation goals and policies that balance the ecological and lifecycle needs of sensitive species and their associated habitats with appropriate and necessary development.
- **Water Resources.** This section serves to promote the conservation and efficient use of water and to protect water bodies and water courses.
- **Agricultural Resources.** The purpose of this section is to minimize land use conflicts, preserve agricultural resources, and support the long-term presence and viability of the agricultural industry as an important component of the region's economy and open space network.
- **Cultural Resources.** This section supplements applicable legislation with goals and policies that set the framework for local ordinances and regulations that protect these important cultural resources.
- **Paleontological Resources.** This section establishes achievable land use-based goals and policies that balance conservation of paleontological resources with appropriate and necessary development.
- **Mineral Resources.** This section includes goals and policies for the management of remaining mineral deposits to ensure adequate mineral resources and mineral resource recovery sites are available to support the demand for construction materials of future generations of San Diego County citizens.
- **Visual Resources.** Policies in this section emphasize the protection of scenic corridors and dark skies within the natural environment and the recognition and enhancement of community character within the "developed" environment.
- **Air Quality, Climate Change, and Energy.** This section identifies goals and policies that address reducing the emissions of criteria air pollutants, reducing emissions of GHGs, and reducing energy use in buildings and infrastructure, while promoting the use of renewable energy sources, energy conservation and other methods of efficiency.
- **Park, Open Space and Recreation Facilities.** This section identifies goals and policies to provide parks, recreation facilities, and open space proportional to the projected increase in population.

### *1.7.1.6 Noise*

The Noise Element of a General Plan provides a basis in the planning process to control and abate environmental noise and to protect citizens from excessive exposure to noise. According to the State of California Office of Planning and Research (OPR) General Plan Guidelines, the purpose of the Noise Element is to provide sufficient information about the community noise environment so that noise is considered during the land use planning process. The goals and policies of the Noise Element include strategies for abating excessive noise exposure through mitigation measures in combination with zoning, as appropriate, to avoid incompatible land

uses. The Noise Element establishes noise/land use compatibility standards and outlines goals and policies which can be used to achieve these standards. The first section of the Noise Element characterizes the noise environment in San Diego County. The next section outlines the County's noise compatibility standards for various land uses. The third section describes the County's goals for achieving the noise compatibility standards and introduces policies to implement these goals. Finally, the last section of the Noise Element identifies potential methods for attenuating noise in development projects.

### 1.7.2 Implementation Plan

The County's Implementation Plan is a set of the actions and procedures necessary to achieve the goals and policies set forth in the General Plan Update. The programs included in the Implementation Plan are a combination of existing County activities, processes, reports, assessments, and plans, as well as new programs that would be initiated upon adoption of the General Plan Update. As a freestanding document that is directly linked and cross-referenced to the General Plan, the County maintains the flexibility to regularly update the Implementation Plan without the necessity of amending the General Plan. This flexibility is important to the County as a means to address the changes that occur over time and that may affect the County's vision, the availability of funding for programs, and future tools and technology that would be used to implement the General Plan.

The Implementation Plan is designed to be a key resource for County staff in assuring that the goals and policies of the General Plan are reflected in day-to-day County operations and services including preparing plans and programs, reviewing development proposals, and maintaining infrastructure. As mandated by State law, the Implementation Plan addresses specific actions required of the County including, but not limited to, the following key activities:

- Preparation of an annual report on the status of the General Plan and progress of its implementation, as well as its progress in meeting its regional housing needs allocation.
- Preparation of an annual capital improvement program for scheduling and financing major public works projects consistent with the General Plan.
- Preparation of an updated zoning code to achieve consistency of the zoning and development standards with the updated General Plan's land use designations and policies.

In addition to these key State-mandated actions, the programs and activities presented in the Implementation Plan address the major areas of planning and service delivery for future growth and development within the County, as outlined in the General Plan Update elements. The County's Draft Implementation Plan can be viewed on the General Plan Update website: http://www.sdcounty.ca.gov/dplu/gpupdate/

## 1.8 Other Project Components

In addition to the General Plan Update elements, land use maps and the Implementation Plan, the proposed project includes other components that require revisions in order to be consistent with the General Plan Update. These components consist of updates to community plans, specific plans, and various County ordinances and policies. Some revisions are directly related to the implementation of the General Plan Update and some are minor changes necessary to maintain consistency with the General Plan and other regulations. Other revisions are proposed

as mitigation measures identified in Chapter 2.0 of this EIR to minimize the environmental impacts of future growth and development under the General Plan Update. For example, County of San Diego Code of Regulatory Ordinances Sections 67.701-67.750, the San Diego County Groundwater Ordinance, would be updated to require residential well tests and apply boundary adjustments; and County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, the RPO, would be updated to include an amendment pertaining to steep slope encroachment requirements and lot design. The other project components are described below and have been considered during preparation of the EIR impact analysis for the proposed project.

### 1.8.1 Community Plan Updates

A community plan, adopted as an integral part of the General Plan, is a policy plan specifically created to address the issues, characteristics, and visions of an individual community within the County of San Diego. The communities within the unincorporated County are distinct and diverse. Some communities serve as transitions from coastal and inland urbanized cities to agricultural areas and open spaces, while others are remotely located in mountain, valley, and desert locations. Each community has a distinct physical setting with a unique history, culture, character, life style, and identity. Community plans, including subregional plans, provide a framework for addressing the critical issues and concerns that are unique to a community and are not reflected in the broader policies of the General Plan. Under the proposed project, existing community plans would be updated for consistency with the General Plan Update elements by removing outdated policies, goals, conditions, and any information that is inconsistent with the updated General Plan. Community planning area boundaries would also be adjusted as requested by some of the community planning and sponsor groups and directed by the BOS.

County staff has developed guidelines to assist the community planning groups in updating their community plans. These guidelines were presented to the Community Advisory Group in late June 2008. Three workshops were held throughout the County in July 2008 to present the guidelines and provide training on how to prepare the community plan updates. During these workshops the community planning and sponsor groups were presented three options with corresponding deadlines for updating each area's community or subregional plan. Option one was the adaptation of the existing community plan for conformance (staff driven). Option two was the adaptation of the existing community plan for conformance with additional supplemental changes (staff/community driven). Option three was a full comprehensive update of the community plan (community driven).

The communities proposing comprehensive updates to their community or subregional plans are Bonsall CPA, Pine Valley in the Central Mountain Subregional Planning Area, Borrego Springs in the Desert Subregional Planning Area, Fallbrook CPA, Boulevard and Potrero in the Mountain Empire Subregional Planning Area, the community of Warner Springs in the North Mountain Subregional Planning Area, Ramona CPA, the communities of Elfin Forest/Harmony Grove in the San Dieguito CPA, and Spring Valley CPA. In addition, the communities for which partial community or subregional plan updates were prepared include the following: Cuyamaca and Descanso in the Central Mountain Subregional Planning Area; Crest/Dehesa Subregional Planning Area; Jamul/Dulzura Subregional Planning Area; Campo/Lake Morena, Jacumba and Tecate in the Mountain Empire Subregional Planning Area; the community of Palomar Mountain in the North Mountain Subregional Planning Area; Rainbow CPA; San Dieguito CPA; and Valle

de Oro CPA. The community plans that are currently being updated are available on the General Plan Update website: http://www.sdcounty.ca.gov/dplu/gpupdate/

## 1.8.2 Specific Plan Changes

The proposed project would review, repeal, or amend specific plans that do not meet the General Plan Update's goals and objectives and would therefore have the potential to result in additional environmental impacts. Only specific plans that were never constructed or vested would be repealed or amended. These specific plans would also be removed from community plans. Additionally, other specific plans may require updated descriptions in the revised community plans.

## 1.8.3 Agricultural Preserve Modifications and Deletions

The General Plan Update would remove the designation of agricultural preserve for most land that is not currently under a Williamson Act Contract. The removal of this designation would apply to approximately 321,590 acres of land throughout the unincorporated County. However, the removal of this designation would not conflict with land currently under Williamson Act Contract. For those lands under Williamson Act Contract, when the contract expires the land would continue to be designated as an agricultural preserve, unless the owner applies to have the designation removed through an action by the County BOS. Impacts to agricultural preserves are discussed in Section 2.2, Agricultural Resources.

## 1.8.4 General Plan Amendment (GPA) 91-02

On December 18, 1991, the BOS approved GPA 91-02, a community plan map, and the text for the Central Mountain Subregional Plan, and certified the final EIR for this GPA. On January 29, 1992, GPA 91-02, the community plan text and the EIR were challenged by an organization called Save Our Forest and Ranchlands. On July 2, 1993, a Final Judgment Issuing Writ of Mandate was issued by the Superior Court, which ruled the EIR as defective. The GPA was considered adequate. The Final Judgment prohibited the County of San Diego from issuing or approving any use permits, subdivision maps, other lot parcelizations or any activity that could result in a change or alteration to the physical environment of the privately owned land in the Central Mountain Subregion outside the existing General Plan regional category of Country Towns. The moratorium would stay in effect until a revised environmental analysis adequately addressed plan to ground impacts in the Subregion. This EIR addresses the plan to ground environmental impacts of the General Plan Update in the Central Mountain Subregion (and all other CPAs and Subregions) and therefore satisfies the requirement of the Central Mountain GPA 91-02 lawsuit. The Central Mountain Subregional Plan would be updated as part of the proposed project, as described in Section 1.8.1.

## 1.8.5 Resource Protection Ordinance (RPO)

County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, the RPO, would be amended to allow some additional flexibility in project design while still protecting significant natural resources. The amendment would allow additional encroachments within steep slopes for certain development when necessary to avoid particularly sensitive resources. Also as part of this amendment, the slope-based density calculations would be removed since they have been integrated into the proposed Land Use Element.

## 1.8.6 Groundwater Ordinance

County of San Diego Code of Regulatory Ordinances Sections 67.701-67.750, the Groundwater Ordinance, will be updated to incorporate the recommendations from the groundwater technical study (Appendix C) and to accommodate conservation-oriented project designs. Specifically, County Code section 67.721 of the Groundwater Ordinance will be revised to take into consideration current methodologies for identifying a long-term adequate groundwater supply for projects. In addition, potentially impacted basins and areas susceptible to low well yield shall be considered for inclusion on the County Groundwater Limitations Map as groundwater impacted basins. Moreover, the Groundwater Ordinance will include a process for waiving the minimum lot size requirements within subdivisions that consolidate the overall development footprint and provide sufficient open space. A provision will also be added to allow the placement of wells within open space or other common areas to achieve adequate spacing on projects with smaller lot sizes.

## 1.8.7 Subdivision Ordinance

Several changes are proposed for the County of San Diego Code of Regulatory Ordinances Title 8, Division 1, the Subdivision Ordinance, in order to implement proposed General Plan elements and allow for improved subdivision design. For example, Policy 1.10 of the Land Use Element requires changes to the ordinance in order to permit the transferring of units between designations on contiguous land within a project site (under the specified criteria). In addition, the proposed Mobility Element would prompt some changes in the Subdivision Ordinance to promote safe and effective transportation networks consistent with development patterns. The Subdivision Ordinance would also be modified to include design criteria for projects in rural lands. Furthermore, a process would be established within the Ordinance to waive certain lot-configuration requirements when various constraints make standard subdivision design infeasible. This would potentially allow more flexibility in the design process when environmental issues such as natural resource protection, fire protection, and land-use compatibility take precedence on a given site.

## 1.8.8 San Diego County Zoning Ordinance

The San Diego County Zoning Ordinance would be revised to be consistent with the General Plan Update and, in many instances, to execute it. In addition, the sections of the zoning ordinance describing planned developments (San Diego County Zoning Ordinance, Section 5800-5806) and lot area averaging projects (San Diego County Zoning Ordinance, Section 4320) would be updated and enhanced to make these types of subdivisions more feasible. New zoning designations would also be adopted as part of the proposed project.

## 1.8.9 Board of Supervisors (BOS) Policies

The proposed project includes revisions to existing BOS policies related to planning and land use issues. For example, BOS Policy I-38, Agricultural Preserves, would be rescinded and replaced with the guiding principles in the Land Use Element. Accordingly, the San Diego County Zoning Ordinance would also be amended to reflect the proposed changes associated with Agricultural Preserves. Another primary example is the removal of BOS Policy I-73, the Hillside Development Policy. A large portion of this policy has been superseded by the RPO.

Under this action, the remaining applicable language would be added to the RPO and the BOS policy would be rescinded.

## 1.9 Purpose and Use of an EIR

The California Environmental Quality Act (CEQA), signed by Governor Reagan in 1970, charges public agencies with the duty to avoid or substantially lessen significant environmental effects, with consideration of other conditions, including economic, social, technological, legal, and other benefits. The basic purposes of CEQA are to inform government decision makers about potential environmental impacts of projects, identify ways the impacts can be reduced or avoided, prevent significant unavoidable environmental damage through alternatives and mitigation, and disclose to the public the reason that decision makers approved a project that may result in environmental impacts, and what those potential impacts may be. CEQA requires the preparation of an EIR for projects that require a discretionary action by government decision makers and may result in a significant environmental impact. A discretionary action is a decision to approve a project that requires judgment or deliberation beyond determining whether a project has conformed to applicable statutes, ordinances, or regulations. The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decisions on the project approval. A lead agency is defined in CEQA Statute 21067 as the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment. The County of San Diego is the lead agency for the proposed project.

This EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (CEQA Guidelines Section 15121(a)). Specifically, this EIR is a "Program EIR" which is defined as "an EIR which may be prepared on a series of actions that can be characterized as one large project" (CEQA Guidelines Section 15168(a)).

The series of actions analyzed in this Program EIR includes potential future development in the unincorporated County based on build-out of the General Plan Update, as well as associated updates to plans, programs and policies that support the General Plan, such as the Implementation Plan, community plans, ordinances, and BOS policies. While the Program EIR intends to identify potential impacts that would result from project implementation, the level of analysis is not detailed to the level of site specificity, nor is it intended to be accurate to this level of specificity. The Program EIR will identify a range of potential impacts resulting from future development allowed under the General Plan Update and will identify mitigation measures that future development may implement to reduce identified potentially significant effects.

An advantage to the Program EIR is that it allows for consideration of effects, alternatives, and cumulative impacts that would be impractical in a project-level EIR. A Program EIR allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts (CEQA Guidelines Section 15168(b)).

Subsequent activities under the program will be examined in light of the EIR to determine whether additional environmental documentation must be prepared. Where subsequent activities are within the scope of the Program EIR and the County, as the lead agency, finds no

new effects would occur or no new mitigation measures would be required pursuant to CEQA Guidelines Section 15162, the subsequent project would be considered to be within the scope of the Program EIR and no further environmental documentation would be required. In addition to Section 15162, other sections of the CEQA and State law may apply that allow for reduced environmental documentation or process. The County intends to use this EIR for coverage of subsequent projects, tiering, and/or streamlining future documentation to the maximum extent allowed by State law.

## 1.9.1 EIR Review Process

### *1.9.1.1 Public and Agency Review*

The County of San Diego prepared a Notice of Preparation (NOP) in compliance with CEQA Guidelines Section 15082. On April 28, 2008, the NOP was mailed to a distribution list consisting of the State Clearinghouse, responsible, trustee, and other relevant local, State, and federal agencies, and interested individuals. The NOP was also published in the San Diego Union-Tribune newspaper and made available on the County of San Diego Department of Planning and Land Use (DPLU) website, the DPLU Project Processing Counter, and at all San Diego County libraries. A 30-day comment period on the NOP commenced on April 28, 2008. A scoping meeting was held on May 15, 2008 to solicit input from interested agencies, individuals, and organizations. A copy of the NOP, comments received on the NOP, and materials from the scoping meeting are included in Appendix A of this EIR.

The Draft EIR will be available for review and comment by the public and public agencies for a 60-day period from July 1 to August 31, 2009. Comments on the Draft EIR should be sent to Devon Muto at the following address:

Devon Muto
County of San Diego DPLU
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Any comments pertaining to the General Plan Update itself or other documents not part of the Draft EIR should be sent separately. A copy of the Draft EIR is available for review during normal operating hours for the duration of the public review period at the following locations:

- County of San Diego DPLU, Project Processing Counter, 5201 Ruffin Road, Suite B, San Diego, California 92123 (8:00 a.m. to 4:00 p.m., Monday through Friday)
- All San Diego County libraries located in the unincorporated area (check with individual libraries for hours of operation)

The Draft EIR is also available for review or downloading on the County of San Diego DPLU website: http://www.sdcounty.ca.gov/dplu/gpupdate/

### *1.9.1.2 EIR Approvals*

The Final EIR will be reviewed by the Planning Commission and a recommendation will be made to the BOS regarding Final EIR approval. The BOS will consider and certify the Final EIR

if it is determined to be in compliance with CEQA. The Final EIR will include any text changes made to the Draft EIR, responses to comments received on the Draft EIR during the public review period, and the Mitigation Monitoring and Reporting Program (MMRP) for the proposed project. After or concurrent with certification of the Final EIR, the BOS will consider the General Plan Update for approval.

#### *1.9.1.3 CEQA Findings, Mitigation Monitoring and Reporting Program, and Statement of Overriding Considerations*

When a public agency approves a project for which an EIR has been certified, which identified one or more potentially significant environmental effects, CEQA requires that the agency make one or more written findings for each of those potentially significant effects accompanied by a brief explanation of the rationale for each finding. Because potentially significant environmental effects have been identified in this EIR, findings will be required for the proposed General Plan Update at the time of project approval. CEQA requires that when a public agency makes findings based on an EIR, the public agency must adopt a reporting or monitoring program for those measures that it has adopted or made a condition of project approval in order to mitigate or avoid potentially significant effects on the environment. The County will adopt an MMRP, in order to ensure compliance with required mitigation measures during project implementation. The statement of overriding considerations identifies the reasons why the benefits of the proposed project outweigh the potentially significant adverse environmental impacts of the project that can not be mitigated to below a significant level.

### 1.9.2 Discretionary Actions, Decisions, Approvals

The General Plan Update would require the approval of a number of discretionary actions by the BOS. According to Sections 15050 and 15367 of the CEQA Guidelines, the County is designated as the Lead Agency for the project under CEQA. Responsible agencies are those agencies, other than the lead agency, that have discretionary approval authority over one or more actions involved with the development of a proposed project. Trustee agencies are State agencies having jurisdiction by law over natural resources affected by a proposed project that are held in trust for the people of the State of California.

### 1.9.3 Additional Review and Consultation Requirements

In addition to the discretionary project approvals required for the General Plan Update, the project is also subject to review and consultation requirements. Consultation that has taken place regarding the General Plan Update is listed below:

- **Tribal Governments**. As required by Senate Bill (SB) 18, the County has consulted with appropriate Native American tribes to aid in the protection of traditional tribal cultural places as part of the General Plan Update process.

- **Native American Heritage Commission (NAHC).** The NAHC was contacted in order to identify the appropriate Native American tribes to consult.

- **Planning and Sponsor Groups**. County planning and sponsor groups provided guidance and assistance in the preparation of the General Plan Update by making policy recommendations to staff, the Planning Commission, and the BOS.

- **Transportation Planning Agencies**. SANDAG, the California Department of Transportation (Caltrans), North County Transit District (NCTD), and Metropolitan Transit Services (MTS) were consulted during the development of the Mobility Element. The San Diego County Regional Airport Authority (SDCRAA) was consulted during development of the Safety Element.

In addition to required consultation, the General Plan Update process involved extensive public outreach, as described below in Section 1.11.2, History of Project Development.

## 1.10 EIR Impact Analysis Methodology

This EIR has been prepared to determine the overall environmental effects of future development in the unincorporated County that would be allowed under the proposed General Plan Update. On a programmatic level, the EIR does not, and cannot, speculate on the individual environmental impacts of specific future development projects in the County. However, implementation of all General Plan Update project components described above were considered during preparation of the EIR, including build-out of the General Plan land use designations up to forecasted population and housing unit totals. The term build-out refers to a scenario in which the proposed General Plan Update land uses and the proposed General Plan Update Mobility Element roadway network have been fully developed within reason while accounting for developable land and constraints. The scenario is based on the population forecast model, described in Section 1.13 of the EIR, and correlates with the SANDAG 2030 forecast for the unincorporated County. Therefore, based on the assumptions programmed within the SANDAG forecast model, it is reasonable to conclude that build-out of the General Plan Update will occur around the 2030 timeframe. Technical analyses, such as traffic modeling, and GIS data were used to determine how and where development under the General Plan Update would result in potentially significant environmental impacts. Federal, State, and local regulations were also considered. In some cases, existing regulations were determined to be sufficient to ensure that impacts would be below a significant level, since all future development projects would be required to comply with existing regulations. Therefore, the General Plan Update was determined to result in a less than significant impact with regard to these issues. An example of such an issue is Section 2.6.3.4, Issue 4: Expansive Soils, in Section 2.6, Geology and Soils. All development in California is required to comply with the California Building Code (CBC), which contains construction and engineering standards for projects located in areas that have high shrink-swell soils. The provisions of the CBC require that a geotechnical investigation be performed to provide data for the architect and/or engineer to responsibly design the project. Because all development under the General Plan Update would be required to comply with this regulation, the General Plan Update would not result in a potentially significant impact associated with expansive soils.

However, such universal regulations are not in place to minimize all environmental impacts. In most cases, future project-specific impact analyses would be required to determine whether a specific development project would or would not result in a potentially significant impact on the environment, such as impacts to biological resources, traffic, or air quality. Because the General Plan Update land use designations would result in development that may result in significant environmental impacts, based on the technical analysis and GIS data, most environmental impacts were determined to be potentially significant and mitigation measures are identified to reduced impacts when feasible.

## 1.11 Project Consistency with Applicable Plans

There are 19 jurisdictions in San Diego County, including the unincorporated County, with local land use authority and the responsibility for preparing their own general plans and general plan EIRs. Regional coordination is necessary to guide overall development and ensure an efficient allocation of infrastructure funding. SANDAG serves as the region's Metropolitan Planning Organization responsible for area-wide coordination and the technical and informational resource for the region's local jurisdictions. SANDAG prepares regional land use and transportation plans, which provide a basis for allocating federal and State funds used for specific items such as land use incentives and transportation improvements. The County works with the SDCRAA on a regular basis to ensure land use compatibility with regional airports. Other agencies with regional documents that affect land use in the County are the San Diego Regional Water Quality Control Board (RWQCB) and the San Diego Air Pollution Control District (SDAPCD). The General Plan Update's consistency with all applicable planning documents is analyzed in Section 2.9, Land Use, of this EIR.

## 1.12 Background Information

Development of the proposed General Plan Update was an extensive, multi-year process involving coordination between the County, unincorporated County residents, and neighboring jurisdictions. This development process and its history are described in this section.

### 1.12.1 History of Project Development

Preparation of General Plan Update began in December 1997. At that time, the General Plan Update was referred to as General Plan 2020 or GP 2020. However, changes in the project occurred during preparation of GP 2020, which slowed its progress. As a result, the horizon year of the plan has been extended and the project is now referred to as the General Plan Update.

#### *1.12.1.1 County Board of Supervisors and Planning Commission Actions*

Major endorsements by the BOS and Planning Commission throughout the planning process are described below.

- **December 1997.** The scope of work for the General Plan Update prepared by the Planning Commission was approved and the General Plan Update project was initiated.
- **August 1998.** Preparation of the General Plan Update began.
- **January 10, 2001.** The BOS directed staff to set aside previous land use maps and to formally appoint an Interest Group Advisory Committee. This directive resulted in an extensive two year outreach process.
- **January 2003.** Planning Commission received direction from the BOS regarding the land use framework, regional maps, population forecast, draft regional goals and policies, and equity mechanisms associated with the General Plan Update, as well as on

the distribution of residential land use within the unincorporated County through a community map review process.

- **June 25, 2003.** The BOS voted unanimously to accept the direction of the General Plan Update, and to accept its planning concepts, land use framework, draft goals and policies, statements of legislative intent, and regional maps for continued refinement and progress. In addition, the BOS directed staff to evaluate a list of residential property referrals, and to return to the BOS within 90 days with staff recommendations on property referrals, along with recommendations from the Planning Commission, community planning and sponsor groups, and affected property owners.

- **August 2003.** Planning Commission received direction from the BOS regarding land use designations for residential properties that were referred back to DPLU staff during a series of Planning Commission and BOS hearings on the General Plan Update held between January 31 and June 25.

- **August 6, 2003.** General Plan "Pipeline Policies" affecting active and future development and entitlement applications were implemented (see Pipeline Policies discussion below in this section).

- **September 24 and October 1, 2003.** The BOS reviewed the working land use distribution map and staff recommendations on residential property referrals. The BOS directed staff to return with groundwater and traffic impact analyses for eight land use scenarios.

- **June 16, 2004.** After a period of working with property owners and communities, the BOS endorsed the residential land uses on the Draft Land Use Map and created the Referral (Board) Alternative Map for the purposes of the environmental impact analysis, which included additional property referrals not included in the former map.

- **February 2005.** Planning Commission received direction from the BOS regarding commercial and industrial designations, resolution of special study areas, proposed revisions to the land use framework, and planning criteria used to develop countywide commercial and industrial proposals.

- **May 11 and 18, 2005.** The BOS voted to accept the direction of the General Plan Update, accept the Draft Land Use Map with amendments, and amend the Board Map with alternative commercial and industrial land uses for the purposes of the environmental impact analysis. These amendments were incorporated into the June 2005 Draft Land Use Map and June 2005 Board Alternative Map.

- **August 2, 2006.** Following a year-long Road Network Planning Process, the BOS endorsed the Mobility Element Road Network, and updated Mobility Element Road Framework. The Draft Land Use Map and Referral Map Alternatives was also endorsed by the BOS in August 2006 and included only minor changes in the Draft Land Use Map for Housing Resources and Road Network reconciliation, and an amendment to the Referral Map for an expired specific plan area.

- **November 6, 19, 20 and December 4, 2009 and February 19, March 12, April 16, July 9, and August 20, 2010.** Nine Planning Commission hearings were conducted

from late 2009 to August of 2010 to consider the General Plan Update and formulate a recommendation to the Board of Supervisors. Throughout this hearing process the Planning Commission made tentative motions to approve the land use maps (by community), and the other General Plan Update documents with select changes to policies or programs. In addition, the Planning Commission directed County staff to develop a Transfer of Development Rights (TDR) Program to include as part of the General Plan Update project. On August 20, 2010, the Planning Commission adopted a resolution that outlined its recommendation to the Board of Supervisors.

- **October 20, November 10, and December 8, 2010 and February 9, March 16, and April 13, 2011.** Six BOS hearings were conducted from the fall of 2010 to the spring of 2011 to consider the General Plan Update. County staff's recommendation to the BOS was generally the same as the Planning Commission recommendation with one primary exception; staff did not recommend inclusion of a TDR program. On April 13, 2011, the BOS supported County staff's recommendation with inclusion of a number of specific changes that were within the scope of the General Plan Update guiding principles and within the range of project alternatives analyzed in this EIR. A detailed analysis of how the recommended project differs from the proposed project, including BOS-directed changes, is provided in Volume IV of this EIR. BOS agendas and meeting minutes, as well as videos of the hearings, are available on the County's website: http://www.sdcounty.ca.gov/cob/bosa/index.html.

### *1.12.1.2 Mapping Process*

Mapping the distribution of residential land uses in the unincorporated County was a complex process that considered a variety of land use planning and legal factors. DPLU staff obtained information from maps depicting steep slopes, environmental sensitivity, roads, floodplains, existing parcel size and dwelling units, active agriculture, and existing General Plan regulations when preparing its land use recommendations. Some of the factors considered during the mapping process included the following:

- Proximity to existing infrastructure and services
- Physical suitability of the site
- Vehicular access
- Potential environmental impacts
- Compatibility with surrounding uses
- Existing level of development
- Landowner requests
- Community and advisory group preferences

As described in Section 1.12.1.1, draft maps were presented to the BOS as early as 2001. Subsequently, staff returned several times with various options and received guidance that facilitated the preparation of the proposed land use map as well as a reasonable range of alternatives, all of which would achieve the project objectives listed in Section 1.3.

### *1.12.1.3 Coordination with Regional Advisory Committees*

The General Plan Update was guided by two regional advisory committees: the Steering Committee and the Interest Group. Additionally, the tribal nations located within the County were solicited for input.

## Steering Committee

The Steering Committee is comprised of one representative from each of the planning and sponsor groups for a total of 26 members. There are 18 planning groups that represent CPAs, Subregions, and subregional group areas. The planning and sponsor groups guide and assist in the preparation of the General Plan Update by making policy recommendations to staff, the Planning Commission, and the BOS. The planning groups are Alpine, Boulevard, Campo/Lake Morena, Crest/Dehesa/Harbison Canyon/Granite Hills, Descanso, Fallbrook, Jamul/Dulzura, Julian, Lakeside, Pine Valley, Potrero, Rainbow, Ramona, San Dieguito, Spring Valley, Sweetwater, Valle de Oro, and Valley Center. There are eight sponsor groups that also represent subregional group areas, CPAs, and Subregions. The sponsor groups advise and assist the Director of Planning, the Zoning Administrator, the Planning Commission and the BOS in the preparation, amendment and implementation of community and subregional plans. The sponsor groups represent Bonsall, Borrego Springs, Cuyamaca, Hidden Meadows, Jacumba, Pala/Pauma Valley, Tecate, and Twin Oaks Valley.

The Steering Committee process first began in January 1998 and the primary role of this committee has been to consolidate meetings into one large forum and provide feedback to County staff. This committee guides and assists in the preparation of the General Plan Update by making policy recommendations to staff, the Planning Commission, and BOS. Staff met with the Steering Committee to build upon earlier work on the regional planning concepts and draft goals and policies for the proposed project. Numerous Steering Committee meetings have focused on developing a land use framework for the General Plan Update. Additional meetings have covered all other aspects of the project.

Through frequent work sessions with the Steering Committee, the communities within the County have been actively involved in the planning process. Their continual input has resulted in defining desired goals, policies, and standards, through the preparation of a land use map, road network map, commercial and industrial distribution pattern for the unincorporated area of the County, and project alternatives.

## Interest Group

The Interest Group is comprised of representatives from 18 stakeholder groups including the building industry, environmental community, professional planning organizations, and the Farm Bureau. The Interest Group includes representatives from professional organizations (American Institute of Architects, American Planning Association, American Society of Landscape Architects), Environmental Interests (Backcountry Coalition, Buena Vista Audubon Society, Citizen Coordinate for Century 3, San Diego Coalition for Transportation Choices, Endangered Habitats League, San Diego Audubon Society, and the Sierra Club), Building and Private Land Interests (Alliance for Habitat Conservation, Building Industry Association, Environmental Development, Helix Land Company, San Diego Association of Realtors, San Diego Regional Economic Development Corp., and Save Our Land Values), and a representative from the Farm Bureau.

The Chief Administrative Officer appointed individuals to the group and ensured the membership was balanced among the competing interests to allow all members the opportunity to participate and their viewpoints to be heard. Members of the group invested a significant amount of time and effort in an often contentious process to reach consensus on their recommendations. Their efforts aided in the progress of the project and facilitated broad based support from the various interests. The Interest Group has met throughout the planning process since early 2001 with County staff to review proposed maps and to prepare goals and policies, planning concepts, and a land use framework for the proposed project. The role of the Interest Group has been to guide and assist in the preparation of the General Plan Update by making policy recommendations to staff, the Planning Commission and BOS.

**Tribal Nations**

Tribal communications have also been a part of General Plan Update process. Since 1998, the County has maintained a list of tribal representatives. In August 2001, County staff sent letters to all 18 tribes within the County informing each of the General Plan Update and inviting their participation in the process. The 18 tribes within the County are listed in Table 1-2. As required by SB 18, in 2005 the County ensured tribal communications during preparation of the Regional elements. Per SB 18 requirements, the NAHC was contacted in order to identify the appropriate tribes to consult; and letters and General Plan Update maps were sent to each tribe to notify them about the General Plan Update process and the Tribal Outreach Meeting scheduled for March 15, 2006. The letter also expressed desire to establish meaningful consultation with interested tribes. The tribes had 90 days from February 8, 2006 to request initial consultation with the County. The 90 day window ended on May 8, 2006.

Initial consultation meetings occurred with six tribes on their reservations. The topic of discussion was the proposed General Plan land uses surrounding tribal lands. In July 2007, all tribes were sent an update letter and a copy of the cultural resources section of the Conservation Open Space Element. This process was repeated again in spring of 2008 along with distribution of the NOP for the General Plan Update EIR. In addition, the County has included the tribal representatives on all public correspondence such as monthly newsletters, meeting information, and status updates on the project.

### *1.12.1.4 Public Outreach*

After several land use maps had been created at the start of the planning process, the desires of developers, environmental groups, and other interest groups to have a more active participatory role in development of the plan became apparent. As a result of controversy surrounding the plan and interest group requests for more active participation in the General Plan Update planning process, the BOS set aside the previous land use maps and directed staff to provide additional land use distribution alternatives and to formally appoint an Interest Group Advisory Committee. This directive resulted in an extensive two-year community outreach process involving the Interest Group, the Steering Committee, community planning/sponsor groups, the Planning Directors from each of the 18 incorporated cities in the County, individual landowners, and members of the public. There have been 681 community planning/sponsor group meetings, workshops, sub-committee meetings, open houses, and 133 meetings with the stakeholder groups.

A draft of the General Plan Update maps and elements were provided to the general public for comment from November 14, 2008 through January 30, 2009. A total of 88 comment letters were received. Staff prepared responses to each comment received and made changes to the draft plan whenever revisions were warranted. The comments and responses are available on the General Plan Update website (http://www.sdcounty.ca.gov/dplu/gpupdate/) along with the revised plan text in strikeout/underline format. As noted above, there have also been regular progress reports to the Planning Commission and the BOS. These presentations described the current status of the project and its schedule, and also provided an opportunity for members of the public to address decision makers with any project-related questions or concerns.

In addition to the formal public outreach methods described above, the County has worked to maintain and enhance other opportunities for participation. Additional efforts to increase public involvement include consistently providing current project information on the General Plan Update website; circulating monthly newsletters; meeting informally with groups and individuals upon request; informing local media; and presenting project issues at community planning group meetings.

## 1.12.2 Pipeline Policies

In several areas of the County, the General Plan Update proposes to change land use designations and densities from those in the existing General Plan. Because of this, some applications for GPAs or Tentative Maps (TMs) that are currently in process based on the existing General Plan do not conform to the General Plan Update's proposed land use map. To address this issue, the BOS directed staff to draft a policy to resolve conflicts for applications that are currently in process to provide certainty for applicants who have active projects in process. Because various types of development applications produce different impacts and are governed by different legal requirements, two policies were approved; one for new Plan Amendment Authorizations (PAAs) and new specific plans and one for TMs or Tentative Parcel Maps (TPMs).

The resultant policies were adopted by the BOS on August 6, 2003 and are often referred to as the "pipeline policies" because they set a date where any applications deemed complete prior to the date will be allowed to be processed under existing General Plan, while applications deemed complete after the date would be required to comply with the proposed General Plan Update.

The policy developed for new PAAs and specific plans provides that applications submitted and deemed complete on or before August 6, 2003 be processed under the provisions of the current General Plan while applications deemed complete after August 6, 2003 be subject to the provisions of the General Plan in effect when the project is approved or disapproved. A corresponding policy was developed for TMs and TPMs. This policy provided that applications for TMs and TPMs submitted and deemed complete on or before August 6, 2003 would be governed by the existing General Plan and applications submitted after August 6, 2003 would be governed by the General Plan in effect at the time the map is approved or disapproved.

Adoption of this policy was intended to reduce conflicts with the processing of active land use projects. Adoption of the August 6, 2003 cut off date for TMs and TPMs was designed to comply with State requirements in Section 66474.2 of the Subdivision Map Act, which requires the County to pass a motion and provide public notice when TM or TPM approvals will be based

on policies not in effect on the date the application is determined to be complete. The policy provided certainty for those applicants with active projects already in process, while providing early notice to existing and future applicants of the effect that adoption of the General Plan Update would have on development applications in process.

## 1.13 County Population Forecast Model and Projected Growth

In 2000, a population forecast model was developed by the County as a means to determine the build-out capacity of the General Plan Update land use map. The model is similar to SANDAG's model but allows for customization to account for more specific data that the County maintains. Additionally, it allows for the County to run the model at its discretion, rather than relying on periodic updates from SANDAG, which updates its population forecasts every year.

### 1.13.1 Components of the County Population Forecast Model

The County population forecast model is intended to forecast population at a regional scale, and does not consider individual property boundaries nor can it determine individual property constraints. The County's model identifies the number of future residential units that would be allowed at build-out according to the proposed land use map and existing constraints. From this information, the forecast population is derived by considering several additional factors, such as existing population, population living in group quarters, vacancy rate, and persons per household. The primary components of the County population forecast model are described below:

- **Existing Population.** Acres of land with existing development at densities of one dwelling unit per acre or higher are not considered when identifying the number of future dwelling units for the County population forecast model. To account for these developed areas, the SANDAG estimated existing population is included in the build-out population forecast. As the Regional Census Data Center for the San Diego region, SANDAG / SourcePoint keeps a complete inventory of data released from the 1990 and 2000 Censuses. Each year, SANDAG produces estimates of population and housing characteristics according to geographic areas within the County. The 2005 population estimates are used as the starting point to determine the build-out population.

- **Group Quarters.** The population living in group quarters is forecast by age, gender, and ethnic group for uniformed military living in barracks or onboard ship, college students living in dormitories, and for other persons in group quarters accommodations, such as persons living in boarding houses, homes for the disabled, rest homes, jails, and other group living situations. The population for group quarters is also based on SANDAG 2005 estimates published in 2006.

- **Vacancy Rates.** Vacancy rates are computed by SANDAG from the supply and demand for housing units. The house supply is determined by the land use map at build-out. The housing demand is based on preference factors for housing by structure type, household headship rates (the fraction of the population that is a household head), and elasticity with respect to housing prices. Vacancy rates are based on 2030 forecasts as estimated by SANDAG in the 2004 Series 10 model.

- **Persons per Household (PPH).** PPH is determined by subtracting the group quarters population from the total population, then dividing this number by the total number of housing units after accounting for the vacancy rate. PPH rates are based on 2030 forecasts estimated by SANDAG in the 2004 Series 10 model.

The County population forecast model identifies the build-out population capacity of a land use map. The number of residential units that would result from build-out of the land use map is calculated by multiplying the number of acres by the land use density, after accounting for factors such as areas with existing development, areas reserved for public right-of-way, and areas with physical and environmental constraints.

The County population forecast model has been applied to the proposed land use map and all the General Plan Update land use alternatives, including the existing General Plan.

The County's population model forecasts a build-out population of 678,270 with 235,861 housing units for the proposed land use map, which is significantly lower than the population forecast identified in the existing General Plan of 768,000 with 279,304 housing units. The General Plan Update population forecast is lower than the previous General Plan due to lower density development identified for areas with land use constraints, such as those that lack sufficient infrastructure and services or are prone to safety concerns, such as wildfires. By taking these factors into account, the General Plan Update population forecast more accurately reflects conditions in the unincorporated County than the previous County General Plan.

## 1.13.2 Differences with SANDAG Population Model Forecast

SANDAG's population model is updated every few years based on new census information, population estimates, and demographic trends. Because the SANDAG model uses different factors than the County's model, differences in the resulting population forecasts have occurred. Historically, the difference between the two models for the 2030 population was nominal (within 10,000 people). However, with the release of the SANDAG July 2008 forecast, this gap substantially increased to 45,122.

SANDAG forecasts that the unincorporated County's 2030 population would be 723,392, while the County's population model forecasts a population of 678,270. The difference between the two models is mostly attributed to differences in PPH, vacancy rates, and group quarters population. The remaining difference is attributed to the number of existing housing units/population. While the number of future housing units is relatively similar between the two models, SANDAG's model assumptions for the increases in PPH and vacancy rates on the existing housing units, which SANDAG estimates is 160,271 in 2004, accounts for the remaining difference in the population models, whereas the General Plan Update population model does not use existing housing units, but instead uses existing population in its analysis. Additionally, SANDAG's model does not account for as many site constraints and other factors that the County's model includes. SANDAG is currently preparing the next update to its population model, which will likely result in lower population forecasts for the unincorporated County due to a recent slow-down in regional growth and incorporated cities planning for a greater share of the growth.

Despite the difference in population forecasts between the County's model and SANDAG's model, the higher number provided by SANDAG was incorporated into the environmental

analysis for issues where the most important factor in determining impacts was the future population number, such as in the Population and Housing section (see Chapter 2.12), because the SANDAG forecast represents the more conservative population forecast. Additionally, regional planning documents, such as the SDCWA Urban Water Management Plan or the SANDAG RTP, were used in preparing analysis within this EIR with regard to public services and infrastructure. These regional planning documents utilized SANDAG projections. For remaining analyses, the more important factor in determining impacts was the number of future housing units as opposed to the future population number because housing units more directly relate to the physical impacts to the environment.

## 1.13.3 Growth Accommodated by General Plan Update

The General Plan land use framework and map described in Section 1.7.1.1 determines how much growth would be accommodated under the General Plan Update through the designation of land uses, and the County's population model described above forecasts the future population that would be associated with this growth. This section generally describes anticipated growth in the County under the General Plan Update.

The CPAs and Subregions proposed for the greatest amount of growth under the General Plan Update compared to existing conditions are the Desert Subregion, Mountain Empire Subregion, North Mountain Subregion, Otay Subregion, Pala/Pauma Valley Subregion, Rainbow CPA, and Valley Center CPA. Each of these communities is anticipated to at least double in population and experience a 90 percent or greater increase in housing units from 2008 to build-out. These planning areas are relatively undeveloped; therefore, even a minimal amount of growth in these areas would result in a large percentage increase as compared to existing conditions. However, the majority of County-wide growth would be directed toward the western areas of the unincorporated County within the SDCWA boundary. As shown in Table 1-1, most of the growth under the General Plan Update would be designated as semi-rural residential and rural land, with some village residential, especially in Valley Center and the Borrego Springs area of the Desert Subregion. Projected increases in number of housing units in each CPA and subregion between 2008 and build-out are provided in Table 1-3. The County's projected population growth during this period is provided in Table 1-4. The communities anticipated to experience the least amount of growth during this period are Pendleton/De Luz CPA, San Dieguito CPA, Spring Valley CPA, and Valle de Oro CPA. Under the General Plan Update, each of these areas would experience a less than 17 percent increase in housing units and a less than 10 percent increase in population growth. Housing units in the Pendleton/De Luz and San Dieguito CPAs would primarily be semi-rural residential density land uses, while village residential land use would be more common in the Spring Valley and Valle de Oro CPAs.

As described above, the General Plan Update would shift development density toward the northwest and southwest areas of the unincorporated County. Therefore, the areas in the west are anticipated to have relatively high forecasted increases in housing units and population growth as compared to the eastern areas. Between 2008 and build-out, the following western communities would experience large increases in housing units as indicated: Alpine (56.3 percent), Bonsall (54.2 percent), Fallbrook (35.4 percent), North County Metro (86.2 percent), Otay (44,851.2 percent), Rainbow (90.2 percent), Ramona (52.5 percent), and Valley Center (108.5 percent). With the exception of Otay, these communities all include land designated village residential, though most residential acreage is designated semi-rural residential or rural land. The Otay Subregion would experience such a dramatic increase in housing units because

currently only five housing units are located in this Subregion. The vast majority of residents are detainees in the detention centers located within the Otay Subregion. Detention centers are not included in housing unit totals. Due to the minimal number of housing units that currently exist in this area, small increases in the number of individual housing units and population translate into a large percentage increase. This new housing would be provided within the specific plan acreage designated in the CPA.

However, some of the communities in the northwest and southwest areas of the County are nearly built-out and have limited space available for new development. These areas would experience limited increases in housing units and population growth under the General Plan Update. The nearly built-out areas of the unincorporated County include County Islands (19.8 percent increase in housing units), Lakeside (14.2 percent), San Dieguito (16.0 percent), Spring Valley (7.0 percent), Sweetwater (16.7 percent), and Valle de Oro (4.9 percent). These communities are projected to experience 4 to 20 percent increases in housing units between 2008 and build-out.

The eastern backcountry communities currently have relatively low numbers of housing units and are proposed for modest growth under the proposed project. Between 2008 and build-out, the following areas would experience an increase in housing units of less than 37 percent: Central Mountain Subregion (34.9 percent), Crest/Dehesa Subregion (15.3 percent), and Julian CPA (36.4 percent). Rural density development is the primary residential land use designation in these areas. Due to the low density of development that currently exists in these areas, small increases in the number of individual housing units and population growth translate into large percentage increases. In these areas, it may be more appropriate to look at the actual increases in housing and population numbers rather than the percentage of growth.

The Desert Subregion would more than double its number of housing units (294.2 percent) and population (408.2 percent) between 2008 and build-out. This is due to increased development density in the Borrego Springs area, including approximately 2,500 acres designated village residential. The Jamul/Dulzura Subregion is also anticipated to experience a substantial increase in housing units of 80.3 percent because a portion of this Subregion is located within the SDCWA boundary, where growth under the General Plan Update will be focused. No land designated village residential is within this Subregion; however, approximately 50,000 acres are designated semi-rural residential and rural lands. Housing units in the Mountain Empire, North Mountain, and Pala/Pauma Valley Subregions are anticipated to double between 2008 and build-out due to development intensification in town centers, including village residential land use. The associated increase in population in these areas would be between 130 to 195 percent.

Some areas of the County will experience very little growth under the proposed General Plan Update because the County has minimal or no land use jurisdiction in these areas and therefore does not propose a substantial increase in housing units or other development. This includes the Pendleton/De Luz CPA (5.5 percent).

## 1.14 Cumulative Projects

The following section provides an introduction to assessing cumulative impacts and an overview of present and probable projects that may create a cumulatively considerable impact. The

analyses of the proposed project's cumulative impacts are included in each environmental topic section of Chapter 2.0.

## 1.14.1 Cumulative Project Assessment Overview

CEQA requires that an EIR discuss cumulative impacts in addition to direct project impacts. According to Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of the environmental impacts attributable to a project alone. Further, the discussion is guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

Section 15130(a) of the CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project when a project's incremental effect is cumulatively considerable. As defined in Section 15065 of the CEQA Guidelines, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. CEQA Guidelines indicate that where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant but shall briefly describe the basis for its conclusion. In addition, the CEQA guidelines allow for a project's contribution to be rendered less than cumulatively considerable with implementation of appropriate mitigation.

The geographic scope defines the geographic area within which projects may contribute to a specific cumulative impact. The geographic scope of the cumulative impact analysis varies depending upon the specific environmental issue being analyzed. The geographic scope for each environmental issue analyzed in this EIR is identified in each environmental topic section of Chapter 2.0.

CEQA Guidelines Section 15130(b) presents two possible approaches for considering cumulative effects:

1. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

2. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

The cumulative analysis for this EIR uses a combination of the two approaches listed above. Past projects were considered as part of the baseline condition for the General Plan Update analysis and were therefore considered as part of the impact analysis identified in Chapter 2.0. Any exceptions to this are noted in the following sections. With regard to present and probable future projects, projections based on adopted general or regional plans, such as incorporated

city, surrounding county and RTPs, were included in the consideration of cumulative projects. Cumulative projects currently in process or under construction in the County that are not included in the proposed General Plan Update due to increased intensity or inconsistent land uses were also considered. The analysis of cumulative effects also considered proposed projects on tribal lands within the County, proposed major utility and transportation infrastructure improvements, FCI lands, and proposed projects on land governed by the National Park Service (NPS), National Forest Service (NFS), and Bureau of Land Management (BLM). To identify such projects, relevant planning documents were reviewed. In addition, this EIR also addresses future projects with characteristics unique to the issue being analyzed. The cumulative projects that were identified and considered in the cumulative impact analyses within the following sections are summarized below and listed in Tables 1-7 through 1-12.

## 1.14.2 Cumulative Projects

This section discusses the broad range of cumulative projects that have been considered in the cumulative impact assessment. Cumulative projects have been subdivided into logical categories as follows: 1) regional land use planning and projected growth; 2) regional transportation plans; 3) regional energy and utility projects; 4) projects not included in the General Plan Update proposed land use map; 5) projects on tribal lands; 6) FCI remapping; and 7) NFS and BLM development projects. An overview of the cumulative projects considered for this analysis is provided below.

### *1.14.2.1 Regional Land Use Planning and Projected Growth*

Table 1-5 provides a summary of regional growth and employment projections for areas that would be directly and/or indirectly impacted by implementation of the proposed General Plan Update under all alternatives. These projections were obtained from databases maintained by SANDAG and the Southern California Association of Governments (SCAG) and provide an overview of the potential growth within the region surrounding the unincorporated County of San Diego. The planning documents discussed below guide development and land use planning in the region to accommodate for the expected growth projected in the SANDAG and SCAG projections.

Table 1-6 provides the 2008 populations and projected populations for each county in the State of California. As shown in this table, the County of San Diego (including both incorporated and unincorporated areas) has the second highest countywide population in the State and is anticipated to remain the second most populated county in 2030. The entire State is anticipated to grow 29.4 percent between 2008 and 2030. Growth varies widely throughout the State, from almost 91 percent in Yuba County to -2.7 percent in Sierra County. The California Department of Finance anticipates that the County will grow approximately 25 percent by 2030, which is a relatively low growth rate compared to the rest of the counties in the State.

**Incorporated City General Plans**

San Diego County contains 18 incorporated cities: Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach and Vista. As required by State law, each city in California must prepare a comprehensive, long-term general plan to guide its future development. This plan must cover the local jurisdiction's entire planning area

and address a broad range of issues associated with development, including the identification of growth projections for future population and employment within the city. In the County of San Diego, SANDAG maintains the most current economic, demographic, land use, and transportation data projections for the County and incorporated cities. These projections are consistent with the adopted general plans of the incorporated cities. Table 1-5 lists population and employment projection data for incorporated cities within San Diego County that has been included in the cumulative analysis.

**Surrounding County General Plans**

Similar to incorporated cities, all counties in California are required by State law to create and adopt a general plan that covers each county's entire planning area and addresses a broad range of issues associated with development, including projected population and employment growth. SCAG maintains the most current economic, demographic, land use, and transportation data for the counties of Orange, Riverside and Imperial. This data is consistent with the counties' adopted general plans. Table 1-5 identifies the population and employment projection data for Orange, Riverside and Imperial Counties that has been included in the cumulative analysis.

**Baja California, Mexico**

San Diego County is bordered to the south by Baja California, Mexico. The three major cities within northern Baja California include Tijuana, Tecate, and Mexicali. Tijuana and Tecate are located to the south of the San Diego County line, while Mexicali is located south of the Imperial County line. Mexicali is the capital of the State of Baja California. Due to their proximity to the U.S./Mexico international border, these cities and surrounding communities are referred to as border communities. The border communities of Baja California are known for having a fast-growing transient population. For example, it is estimated that Tijuana alone has a "floating population" of over 50,000, with a large number commuting to and from San Diego County for employment (ICF 2004).

The San Diego/Tijuana region is the largest bi-national metropolitan area in North America. In 2004, the region had over 4.1 million people, with the City of Tijuana accounting for approximately 1.3 million (ICF 2004). Tijuana is growing at an annual rate of approximately 4.9 percent and Baja California as a whole has been growing annually by approximately 5.0 percent during the last decade. Based on these growth rates, it is anticipated that the San Diego/Tijuana region's population will reach 8 million by 2030, including growth in San Diego County (ICF 2004). Table 1-7 provides a list of projects in Mexico considered within the cumulative analysis. This is not a comprehensive list of development projects in Baja California, Mexico; however, it includes several large-scale present and probable future projects that would have the potential to contribute to cumulative impacts in the region.

### *1.14.2.2 Regional Transportation Plans (RTPs)*

SANDAG and SCAG are the two major regional transportation planning agencies in the project region. A discussion of future transportation projects, as proposed by these two agencies, is provided below.

**2030 San Diego RTP**

Approved in 2007, SANDAG's 2030 San Diego RTP was developed to meet the San Diego region's long-term mobility needs, better connect transportation and land use policy decisions, and create a transportation network that will serve the people of the San Diego region until 2030. The 2030 RTP proposes approximately 85 new or improved transit projects, high occupancy vehicle connector routes, highway system completion routes, freeway connectors, transit facilities, arterial transit improvements, and international transportation projects under the RTP's Reasonably Expected Revenue Scenario. These projects have been considered within the cumulative analysis and are listed in Table 1-8. Projects listed in this table that are currently undergoing environmental review include the Interstate 5 Widening Project and the State Route 76 (Melrose to Mission Highway) Improvement Project.

The Regional Arterial System provides critical links to the highway network and serves as alternative routes to the regional highway network. The RAS is identified in Technical Appendix 7, Transportation Evaluation Criteria and Rankings, of the 2030 RTP; however, specific improvements to this network are not included. Planned improvements to the Regional Arterial System are identified in the local circulation elements of the cities and the county. Funding is intended to come from the local jurisdictions; however, as a result of Proposition 42 and the voter-approved $2,071 per dwelling unit for regional arterials, TransNet funds contribute to the construction of these facilities.

The 2030 San Diego RTP is available at:
http://www.sandag.org/?projectid=197&fuseaction=projects.detail.

**SCAG 2008 RTP**

In May 2008, SCAG adopted the 2008 RTP. The SCAG 2008 RTP connects the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties with a unifying strategy for maintaining and increasing regional transportation services and facilities through the year 2035. The RTP emphasizes the importance of system management, goods movement, and innovative transportation financing. Hundreds of transportation projects are included in the RTP that are located in the adjacent counties of Orange, Riverside, or Imperial. These projects were considered as part of the cumulative analysis. A list of projects identified in the SCAG 2008 RTP is provided at http://www.scag.ca.gov/rtp2008/.

### *1.14.2.3 Regional Energy and Utility Projects*

The projected growth of the San Diego region will necessitate the development of new energy and utility projects to serve the forecasted population until 2030 and beyond. These projects include energy, telecommunications, railroad, water, wastewater, and desalination projects. A discussion of the proposed regional energy and utility projects in the County and surrounding areas is provided below.

The California Energy Commission (CEC) is the State's primary energy policy and planning agency. The five major responsibilities of the CEC include: 1) forecasting future energy needs and keeping historical energy data; 2) licensing thermal power plants 50 megawatts (MW) or larger; 3) promoting energy efficiency through appliance and building standards; 4) developing energy technologies and supporting renewable energy; and 5) planning and directing the State's response to an energy emergency. The CEC maintains a list of major energy projects that are under construction and/or permitted pending construction in the vicinity of San Diego County. As identified in Table 1-9, ten energy projects on the CEC's list are located in San Diego, Riverside, Imperial, or Orange Counties. These projects were considered as part of the cumulative analysis.

The U.S. Department of Energy and U.S. Department of the Interior are in the process of designating energy corridors on federal lands in the 11 western states. This project is referred to as the Wide-west Energy Corridor project and has been proposed to meet provisions set by the Energy Policy Act of 2005. The project would designate 368 energy corridors over 6,000 miles and amend land use plans on federal land. As part of this project, electric and multi-modal transmission corridors would be established within BLM and NFS lands in San Diego and surrounding counties. This project has been considered as part of the cumulative project analysis.

The California Public Utilities Commission (CPUC) regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, passenger transportation companies, and authorizes video franchises in California. CPUC maintains an online database of current projects. Projects listed on this database that have been considered in the cumulative impact analysis are listed in Table 1-10. This list includes the Sunrise Powerlink Transmission Project proposed by San Diego Gas and Electric Company (SDG&E). This project would construct a 500 kV transmission line in conjunction with several 230 kV transmission lines and is expected to extend 150 miles between Imperial Valley and San Diego County. Table 1-10 also includes components of the proposed Devers-Palo No. 2 Transmission Project. This project consists of two electric transmission lines, including a 225-mile transmission line between California and Arizona and a 42-mile transmission line between Southern California Edison's (SCE) Devers and Valley substations in California. This project would extend through Riverside County and is expected to increase the ability to transfer electricity between states in the southwestern United States. SCE estimates the project to be in operation by 2011 (SCE 2004).

SDG&E is a regulated public utility that provides energy service to 3.4 million consumers through 1.4 million electric meters and 830,000 natural gas meters in San Diego and southern Orange Counties. SDG&E's service area spans 4,100 square miles. In 2003, SDG&E submitted a Long-Term Resources Plan to the CPUC. The plan included strategies to create a balance of conservation, more renewable energy supplies, new local power generation, and increased transmission capacity to meet the future energy needs of customers in SDG&E's service area. This plan accounts for a 20-year planning period. The Long-Term Resources Plan and associated projects have been considered in the cumulative analysis. Information on SDG&E's 2003 Long-Term Resources Plan is available at:
http://www.sdge.com/aboutus/longterm/index.shtml.

SCE provides electricity transmission and distribution throughout a 50,000-square-mile service area that covers portions of Riverside and Orange County. The SCE 2004-05 Procurement Plan serves as the planning document for the utility provider and offers a specific long-term resource plan for the 2007-2016 planning period. The 2004-05 SCE Procurement Plan and

associated projects have been considered in the General Plan Update EIR cumulative analysis. Information on SCE's Procurement Plan can be found at: http://www.sce.com/AboutSCE/Regulatory/eefilings/proposals/2004.htm.

Water utility projects have also been included in the analysis of cumulative projects. Two major water projects proposed by SDCWA are the San Vicente Dam Emergency Storage Project and the San Vicente Dam Carryover Storage Project. These projects will be constructed concurrently to raise the existing San Vicente Dam by a combined total of 117 feet in order to increase emergency water storage capacity for the region by 52,100 acre feet (AF) and carryover storage capacity by 100,000 AF. Environmental review and approval of the two projects is complete and construction is scheduled to begin in the summer of 2009. Other major SDCWA projects include the Lake Hodges Project, which is currently under construction. This project consists of an underground pipeline, a pump station, an electrical switchyard, and an inlet-outlet structure that are designed to make water available to the San Diego region in the event of an interruption in imported water deliveries. Construction is expected to be complete in 2009.

The Poseidon Resource Group has received final approvals for all required permits to construct a 50 million gallon per day seawater desalination plant and associated water delivery pipelines. This project is located at the Encina Power Station in the City of Carlsbad and is scheduled to begin construction in 2009 and be operational by the end of 2011.

#### *1.14.2.4 Private Projects Not Included in the General Plan Update Land Use Map*

The proposed General Plan Update will guide future land development within the County's jurisdiction. However, within the unincorporated areas of the County there are a number of ongoing development projects that are in the approval process, or have recently been approved and are currently under construction, that are not represented in the proposed General Plan Update land use map. These projects largely consist of private development proposals that require approvals such as GPAs, specific plans and specific plan amendments, TMs/TPMs, and major use permits. The various development projects currently undergoing review by the County were evaluated for consistency with the General Plan Update EIR. Many of the approvals were found to be consistent or have negligible relevance, such as administrative permits, minor use permits, building permits, and grading permits (a complete list of approvals that are processed by the County can be found on the DPLU website http://www.sdcounty.ca.gov/dplu/). After review, 148 projects were included in the EIR cumulative analysis. These projects are listed in Table 1-11. A summary of the types of approvals associated with the project list is provided below.

**General Plan Amendments**

GPAs are proposals to amend the general plan. Amendments may apply to any part of the general plan; however, private proposals are typically related to development that is more intense and/or of a different type than what is allowed under the current general plan. As such, they are commonly combined with specific plans, TMs, and/or major use permits. GPAs that are currently in process, or are recently approved and under construction, and would be more intense than the proposed project were included in the General Plan Update cumulative analysis.

**Specific Plans/Specific Plan Amendments**

Specific plans and specific plan amendments must comply with the current General Plan. The General Plan Update does not include revisions to specific planning areas where specific plans already exist or are in process. However, some of the existing specific plans are accompanied by a GPA for higher intensity development than would be allowed under the existing General Plan. In those cases where this occurs and the project is not included on the General Plan map, it needs to be included in the EIR cumulative analysis. These projects have already been identified as part of the GPA review process described above.

**Tentative Maps/Tentative Parcel Maps**

TMs are subdivisions of land into five or more lots. TPMs are subdivisions of land into four or fewer lots with the option to include a remainder lot (totaling no more than five lots). All TMs and TPMs that are currently in process by the County were reviewed for consistency with the General Plan Update. Those that would result in higher densities (more dwelling units) than would be allowed by the General Plan Update have been included in the cumulative analysis, with the exception of projects in planning areas where the total cumulative change would not result in an increase greater than 10 units.

**Major Use Permits**

Major use permits are used to permit specific unique uses. They include both large projects such as churches and camps and small projects such as cellular telecommunications sites. Major use permits are not directly implemented by the existing General Plan although they must comply with its goals and policies. The San Diego County Zoning Ordinance specifies the locations, specific uses, and conditions for application of major use permits. All major use permits that are currently in process with the County were inventoried. Because these projects do not specifically relate to intensities identified in the General Plan, it is difficult to determine if they would result in more intense development than would be allowed under the General Plan Update. Therefore, all major use permits with the potential to result in substantial community or environmental impacts were identified and reviewed for consideration in the General Plan Update cumulative impact analysis.

### *1.14.2.5 Forest Conservation Initiative (FCI) Remapping*

On November 2, 1993 the voters of San Diego County approved the FCI. Along with changes to the County's General Plan, the FCI required the County to place a minimum parcel size of 40 acres, with a maximum density of one dwelling unit per parcel, on all parcels affected by the FCI. The FCI affected approximately 83,000 acres within Pendleton/De Luz CPA, North Mountain Subregion, Ramona CPA, Julian CPA, and the Central Mountain, Mountain Empire, Desert, and Jamul/Dulzura Subregions. The FCI expired on December 31, 2010. Currently, the County is evaluating where the land use designations should change within the former FCI areas. The purpose of the effort is to determine if there are more appropriate land uses for parcels whose uses have been restricted by the FCI. The anticipated outcome of this effort would be to seek a GPA based on the land use plan that is generated from this planning process. For the purposes of the EIR cumulative analysis, general assumptions were made as to which lands would be affected by the FCI GPA and the resulting land use designations. FCI-

affected land is depicted with cross-hatching on the proposed General Plan Update land use plan (see Figure 1-3).

### *1.14.2.6 Projects on Tribal Lands*

There are 13 Native American Indian tribes located within the unincorporated County that have plans to expand or construct major facilities on their reservation lands. These include Barona, Campo, Ewiiaapaay, Pauma and Yuima, Pala, La Posta, La Jolla, Jamul, Rincon, San Pasqual, Santa Ysabel, Sycuan, and Viejas Tribes. Table 1-12 lists 33 projects that have been proposed for future planning and construction by local tribes within the County. The majority of these projects involve casino and resort construction. All proposed development projects that were formally announced by tribal governments as of the issuance of the NOP (April 28, 2008) were considered in the EIR cumulative analysis.

### *1.14.2.7 Bureau of Land Management (BLM) and National Forest Service (NFS) Projects*

Three federal agencies manage public lands within San Diego County. These include the BLM, NFS, and NPS. The BLM is a federal agency with the responsibility for carrying out a variety of programs for the management and conservation of public land surface acres and subsurface mineral estates. NFS is a federal agency that manages public lands in national forests and grasslands. Both BLM and NFS have jurisdiction over lands in the unincorporated San Diego County and surrounding vicinity. NPS is a federal agency that cares for national parks. The Cabrillo National Monument, located in the City of San Diego, is the only NPS-administered land area within the entire County of San Diego and the surrounding regional vicinity. There are no major projects foreseen on Cabrillo National Monument and, therefore, NPS lands have not been included in the cumulative analysis (NPS 2008a). The BLM and NFS both have current and future projects proposed or scheduled to take place on their administered lands and are, therefore, included in the cumulative analysis. NPS and BLM projects are discussed further below.

**Bureau of Land Management (BLM)**

The BLM manages public lands within San Diego County through the El Centro Field Office and the Palm Springs/South Coast Field Office. The Palm Springs/South Coast Field Office manages approximately 1.7 million acres of public land. Most of this is in Riverside County, although the BLM also manages public lands on Beauty Mountain in northwestern San Diego County and the 68,000 acres in the Border Mountains Region of western San Diego County. The El Centro Field Office manages 1.4 million acres of public lands in Imperial and San Diego County. Approximately 95 percent of the lands managed by the El Centro Field Office are located in Imperial County, while the remaining lands are located in San Diego County, primarily along the U.S./Mexico international border.

The BLM maintains a list of projects occurring on their lands. A review of current projects underway on BLM lands and applicable to the General Plan Update includes the modernization/expansion of manufacturing facilities at the Plaster City Plant in western Imperial County. This project proposes the installation of an approximate 14.4 MW cogeneration unit, a new production well and improvements to existing facilities. Approximately 14,730 acres of BLM land located in western Imperial County is also proposed to be leased and developed for

geothermal resources in an area known as the Truckhaven Geothermal Leasing Area. The U.S. Customs and Border Protection, Border Patrol San Diego Sector, is also proposing to conduct maintenance on Monument 250 Road, which crosses lands administered by the BLM along the extreme southeast corner of Otay Mountain. This project would allow the Border Patrol access to the U.S./Mexico international border. In addition to these projects, both the Sunrise Powerlink Project and the West-Wide Energy Corridor Project, discussed above, would cross BLM lands in San Diego and Imperial Counties.

**National Forest Service (NFS)**

The NFS manages the Cleveland National Forest, located in eastern San Diego County and parts of Orange, Riverside and Imperial Counties. The NFS maintains a schedule of proposed actions (SOPA) for projects within the Cleveland National Forest. The majority of the projects currently listed on SOPA include small scale renovations to existing facilities and trails. However, two project types listed on the NFS SOPA list are included in this cumulative analysis, the West-Wide Energy Corridor Project, discussed above, and NFS projects involving fuel management activities. Generally, fuel management activities tend to be small scale projects that reduce current fuel loads (vegetation) manually to reduce potential wildfire threats. However, the Forest Service is also proposing to continue the aerial application of fire retardant to fight fires on NFS lands. Fuel management activities can have a significant impact on biological resources, and are therefore included in the cumulative analysis.

## 1.15 Organization of the EIR

This EIR is organized into two volumes. Volume I addresses the physical environmental effects of the proposed project. Associated technical appendices are contained in Volume II.

Volume I of the General Plan Update EIR includes the following:

- **Summary.** Provides a summary the proposed General Plan Update and the potentially significant environmental impacts that would result from its implementation, proposed mitigation measures that would avoid or reduce impacts, and the level of significance of impacts both before and after mitigation. The Summary also addresses areas of controversy known to the lead agency; issues to be resolved by the decision-making body; a synopsis of the project alternatives; and a table summarizing the comparative impacts of the project alternatives to the proposed project.

- **Chapter 1.0, Project Description, Location, and Environmental Setting.** Describes the General Plan Update and all of its components, including its location, background information, major objectives, existing environmental setting, and the environmental review process.

- **Chapter 2.0, Environmental Effects of the Proposed Project.** Discusses the environmental effects of the project on 17 environmental topics. Describes the existing conditions and regulatory framework for each environmental topic and includes the analysis of the project's direct and cumulative impacts, the significance of project impacts, and mitigation measures. Chapter 2.0 includes effects that are found to be potentially significant and effects found not to be significant.

- **Chapter 3.0, Other CEQA Considerations.** Discusses growth inducing impacts and significant irreversible environmental changes. The growth inducing impacts section discusses the potential for the project to induce growth in adjacent jurisdictions, such as Riverside and Imperial Counties, Mexico, and incorporated cities within the County, and the potential for environmental impacts to occur as a result of such growth. Chapter 3.0 also includes a section which discusses significant irreversible environmental changes that would result from project implementation.

- **Chapter 4.0, Project Alternatives.** Describes each project alternative, provides a rationale for each alternative, and a comparative analysis of each environmental topic. An environmentally superior alternative is also identified.

- **Chapter 5.0, List of References**. Provides a list of references used in the preparation of the EIR.

- **Chapter 6.0, List of EIR Preparers and Persons and Organizations Contacted**. Provides a list of persons who contributed in the preparation of the EIR as well as persons and organizations contacted.

- **Chapter 7.0, List of Mitigation Measures and Environmental Design Considerations**. Provides a list of proposed mitigation measures and a list of all project design considerations that were relied upon to reduce potentially significant impacts of the proposed project.

Volume II of the General Plan Update EIR includes the following:

- **Appendix A.** NOP, Comments Received on the NOP, and Materials from the Scoping Meeting
- **Appendix B.** Air Quality Technical Report
- **Appendix C.** Biological Resources Tables
- **Appendix D.** Groundwater Study
- **Appendix E.** Proposed Road Construction/Widening Table
- **Appendix F.** Noise Technical Report
- **Appendix G.** Traffic and Circulation Assessment
- **Appendix H.** Traffic Impacts to Adjacent City Jurisdiction Report
- **Appendix I.** Rationale for Accepting Roadways with Level of Service E/F
- **Appendix J.** Single Year, Normal-Year and Multiple Dry Water Year UWMP Supply and Demand Assessments
- **Appendix K.** Greenhouse Gas Emissions Inventory
- **Appendix L.** Project Alternatives Areas of Difference
- **Appendix M.** Environmentally Superior Map Comparison to Referral Map

Volume III of the General Plan Update EIR includes the following:

- **Summary of Changes to the Draft EIR.** Modifications that resulted from responses to comments received during the Draft EIR public review period as well as staff-initiated changes
- **Comment Letters and Responses to Comments on the Draft EIR.**

Volume IV of the General Plan Update EIR includes the following:

- **Summary of Amendment to the EIR.** Description and Analysis of the Recommended Project
- **Appendix A.** General Plan Update Text, Goals, and Policies Differences Recommended to Proposed Project
- **Appendix B.** Land Use Map Differences Recommended Project to Proposed Project
- **Appendix C.** Areas of Difference - Recommended Project (22 mb)
- **Appendix D.** General Plan Update Mobility Element Road Network Differences - Recommended to Proposed Project
- **Appendix E.** Technical Memorandum: County General Plan Update - Recommended Project Alternative (Traffic Model Results)
- **Appendix F.** Impacted Roadway Segments and Supporting Rationale for LOS E/F Level Acceptance

## Table 1-1. Land Use Designation Distribution for General Plan Update

| CPA or Subregion | Land Use Designation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Village Residential | Semi-rural Residential | Rural Lands | Specific Planning Area | Office Professional | Commercial | Industrial | Village Core Mixed Use | Public/Semi-Public Facilities | Federal and State Lands | Tribal Lands | Open Space | Military Installations |
| Alpine CPA | 1,284 | 8,024 | 15,396 | 42 | 5 | 122 | 257 | 41 | 716 | 30,991 | 8,264 | 3,014 | 0 |
| Bonsall CPA | 334 | 14,954 | 3,552 | 534 | 10 | 70 | 0 | 0 | 1,208 | 0 | 0 | 376 | 0 |
| Central Mountain Subregion | 729 | 1,589 | 35,691 | 0 | 5 | 43 | 2 | 0 | 1,887 | 146,039 | 9,954 | 7,374 | 0 |
| *Cuyamaca* | 0 | 765 | 7,896 | 0 | 0 | 2 | 0 | 0 | 201 | 33,258 | 808 | 1,738 | 0 |
| *Descanso* | 157 | 461 | 6,658 | 0 | 0 | 14 | 0 | 0 | 512 | 12,210 | 468 | 460 | 0 |
| *Pine Valley* | 572 | 363 | 15,275 | 0 | 5 | 27 | 2 | 0 | 1,174 | 74,490 | 195 | 582 | 0 |
| *Remainder* | 0 | 0 | 5,862 | 0 | 0 | 0 | 0 | 0 | 0 | 26,081 | 8,483 | 4,594 | 0 |
| Crest/Dehesa Subregion | 0 | 5,749 | 7,574 | 1,812 | 0 | 15 | 0 | 0 | 120 | 0 | 803 | 4,115 | 0 |
| County Islands CPA | 175 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 259 | 0 | 0 | 0 | 0 |
| Desert Subregion | 2,594 | 15,224 | 73,326 | 4,344 | 27 | 655 | 171 | 0 | 1,503 | 465,508 | 656 | 35,137 | 0 |
| *Borrego Springs* | 2,594 | 13,429 | 33,040 | 4,344 | 27 | 585 | 171 | 0 | 997 | 19,435 | 0 | 212 | 0 |
| *Remainder* | 0 | 1,795 | 40,286 | 0 | 0 | 70 | 0 | 0 | 506 | 446,073 | 656 | 34,925 | 0 |
| Fallbrook CPA | 3,874 | 17,420 | 8,726 | 1,482 | 19 | 240 | 271 | 118 | 1,890 | 0 | 0 | 2,053 | 0 |
| Jamul/Dulzura Subregion | 0 | 18,135 | 30,576 | 3,726 | 10 | 104 | 0 | 0 | 379 | 12,332 | 6 | 42,096 | 0 |
| Julian CPA | 27 | 4,770 | 20,423 | 0 | 0 | 86 | 0 | 0 | 175 | 528 | 0 | 7,329 | 0 |
| Lakeside CPA | 5,701 | 8,925 | 10,615 | 4,152 | 6 | 403 | 1,037 | 0 | 748 | 0 | 302 | 14,139 | 0 |
| Mountain Empire Subregion | 267 | 10,645 | 79,326 | 1,425 | 0 | 406 | 352 | 0 | 2,822 | 108,683 | 28,493 | 71,830 | 0 |
| *Boulevard* | 25 | 2,307 | 28,453 | 0 | 0 | 177 | 0 | 0 | 933 | 0 | 14,805 | 8,651 | 0 |
| *Campo/Lake Morena* | 160 | 4,747 | 21,080 | 0 | 0 | 53 | 6 | 0 | 892 | 10,369 | 1,006 | 17,293 | 0 |
| *Jacumba* | 82 | 654 | 8,459 | 1,425 | 0 | 31 | 0 | 0 | 734 | 2,321 | 0 | 8,066 | 0 |
| *Potrero* | 0 | 2,834 | 12,306 | 0 | 0 | 50 | 0 | 0 | 34 | 0 | 0 | 8,825 | 0 |
| *Tecate* | 0 | 103 | 3,582 | 0 | 0 | 95 | 346 | 0 | 59 | 0 | 0 | 1,396 | 0 |
| *Remainder* | 0 | 0 | 5,446 | 0 | 0 | 0 | 0 | 0 | 170 | 95,993 | 12,682 | 27,599 | 0 |

**Table 1-1 (Continued)**

| CPA or Subregion | Land Use Designation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Village Residential | Semi-rural Residential | Rural Lands | Specific Planning Area | Office Professional | Commercial | Industrial | Village Core Mixed Use | Public/Semi-Public Facilities | Federal and State Lands | Tribal Lands | Open Space | Military Installations |
| North County Metro Subregion | 6,116 | 20,110 | 19,437 | 2,794 | 66 | 222 | 97 | 0 | 992 | 0 | 0 | 5,781 | 0 |
| *Hidden Meadows* | 132 | 5,067 | 2,137 | 2,318 | 7 | 77 | 0 | 0 | 391 | 0 | 0 | 0 | 0 |
| *Twin Oaks Valley* | 0 | 5,262 | 2,612 | 0 | 51 | 59 | 45 | 0 | 162 | 0 | 0 | 0 | 0 |
| *Remainder* | 5,984 | 9,781 | 14,688 | 476 | 8 | 86 | 52 | 0 | 439 | 0 | 0 | 5,781 | 0 |
| North Mountain Subregion | 176 | 7,740 | 83,004 | 2,972 | 0 | 55 | 0 | 0 | 208 | 94,679 | 49,001 | 73,900 | 0 |
| *Palomar Mountain* | 0 | 0 | 14,319 | 0 | 0 | 0 | 0 | 0 | 120 | 51,575 | 8,699 | 116 | 0 |
| *Remainder* | 176 | 7,740 | 68,685 | 2,972 | 0 | 55 | 0 | 0 | 88 | 43,104 | 40,302 | 73,784 | 0 |
| Otay Subregion | 0 | 0 | 879 | 4,284 | 0 | 0 | 0 | 0 | 1,580 | 0 | 0 | 21,612 | 0 |
| Pala/Pauma Valley Subregion | 503 | 10,048 | 33,694 | 0 | 0 | 42 | 0 | 0 | 1,807 | 0 | 21,851 | 5,745 | 0 |
| Pendleton/De Luz CPA | 0 | 2,366 | 12,646 | 0 | 0 | 0 | 0 | 0 | 302 | 12,744 | 0 | 890 | 134,355 |
| Rainbow CPA | 83 | 3,296 | 5,424 | 0 | 0 | 61 | 11 | 0 | 519 | 0 | 0 | 268 | 0 |
| Ramona CPA | 4,188 | 21,342 | 43,038 | 862 | 18 | 399 | 185 | 0 | 1,447 | 0 | 7,976 | 9,837 | 0 |
| San Dieguito CPA | 87 | 13,750 | 1,954 | 10,104 | 5 | 2 | 0 | 13 | 358 | 0 | 0 | 3,585 | 0 |
| Spring Valley CPA | 4,716 | 104 | 0 | 650 | 15 | 217 | 284 | 0 | 579 | 0 | 0 | 873 | 0 |
| Sweetwater CPA | 1,985 | 890 | 187 | 0 | 14 | 35 | 0 | 0 | 678 | 0 | 0 | 3,865 | 0 |
| Valle de Oro CPA | 5,295 | 2,549 | 152 | 1,423 | 24 | 135 | 2 | 0 | 731 | 0 | 0 | 2,813 | 0 |
| Valley Center CPA | 681 | 28,862 | 14,903 | 3,209 | 15 | 241 | 101 | 55 | 709 | 0 | 3,102 | 3,346 | 0 |
| **Unincorporated County Total** | **38,819** | **216,492** | **500,602** | **43,815** | **239** | **3,553** | **2,770** | **227** | **21,617** | **871,504** | **125,112** | **319,978** | **134,355** |

Source: County DPLU GIS 2008

## Table 1-2. Native American Tribes in the County of San Diego

| Tribe | Reservation Location |
|---|---|
| Barona Band of Mission Indians | Barona |
| Campo Band of Kumeyaay Indians | Campo |
| Capitan Grande Band of Diegueno Mission Indians | Alpine |
| Cuyapaipe Band of Mission Indians | Alpine |
| Inaja-Cosmit Band of Indians | Escondido |
| Jamul Indian Village | Jamul |
| La Jolla Band of Indians | Pauma Valley |
| La Posta Band of Mission Indians | Boulevard |
| Las Coyotes Band of Mission Indians | Warner Springs |
| Manzanita Band of the Kumeyaay Nation | Boulevard |
| Mesa Grande Band of Mission Indians | Santa Ysabel |
| Pala Band of Mission Indians | Pala |
| Pauma/Yuima Band of Mission Indians | Pauma Valley |
| Rincon Nation of Luiseno Indians | Valley Center / Pauma Valley |
| San Pasqual Band of Indians | Valley Center |
| Santa Ysabel Band of Diegueno Indians | Santa Ysabel |
| Sycuan Band of the Kumeyaay Nation | Dehesa |
| Viejas Band of Kumeyaay Indians | Alpine |

Source: USD 2008

## Table 1-3. Anticipated Increase in Housing Units 2008 - Build-Out Under General Plan Update

| CPA/Subregion | Total Number of Housing Units (2008)[1] | New Housing Units Accommodated by the General Plan Update[2] | Total Forecasted Housing Units (Build-out) | Percent Change in Housing Units (2008-Build-out) |
|---|---|---|---|---|
| Alpine | 6,444 | 3,626 | 10,070 | 56.3 |
| Bonsall | 3,837 | 2,080 | 5,917 | 54.2 |
| Central Mountain | 2,127 | 742 | 2,869 | 34.9 |
| County Islands | 619 | 123 | 742 | 19.8 |
| Crest/Dehesa | 3,530 | 541 | 4,071 | 15.3 |
| Desert | 3,140 | 9,237 | 12,377 | 294.2 |
| Fallbrook | 15,665 | 5,546 | 21,211 | 35.4 |
| Jamul/Dulzura | 3,167 | 2,544 | 5,711 | 80.3 |
| Julian | 1,686 | 614 | 2,300 | 36.4 |
| Lakeside | 27,411 | 3,880 | 31,291 | 14.2 |
| Mountain Empire | 2,694 | 3,416 | 6,110 | 126.8 |
| North County Metro | 15,970 | 13,190 | 29,160 | 82.6 |
| North Mountain | 1,515 | 2,421 | 3,936 | 159.8 |
| Otay | 5 | 2,243 | 2,248 | 44,851.2 |
| Pala/Pauma Valley | 1,940 | 2,395 | 4,335 | 123.5 |
| Pendleton/De Luz | 6,667 | 366 | 7,033 | 5.5 |
| Rainbow | 683 | 616 | 1,299 | 90.2 |
| Ramona | 11,997 | 6,208 | 18,205 | 51.7 |
| San Dieguito | 10,854 | 1,734 | 12,588 | 16.0 |
| Spring Valley | 20,512 | 1,441 | 21,953 | 7.0 |
| Sweetwater | 4,519 | 756 | 5,275 | 16.7 |
| Valle de Oro | 15,477 | 758 | 16,235 | 4.9 |
| Valley Center | 6,513 | 7,064 | 13,577 | 108.5 |
| **Unincorporated Area** | **166,972** | **71,540** | **238,512** | **42.8** |

Sources: [1] SANDAG 2008c; [2] County DPLU 2008j

## Table 1-4. Anticipated Increase in Population 2008 - Build-Out Under General Plan Update[1]

| Community | Existing Conditions (2008)[2] | Population Accommodated by the General Plan Update | Forecasted Population (Build-out) | Percent Change (2008-Build-out) |
|---|---|---|---|---|
| Alpine | 17,350 | 10,040 | 27,390 | 57.9 |
| Bonsall | 9,890 | 6,050 | 15,940 | 61.2 |
| Central Mountain | 4,646 | 1,454 | 6,100 | 31.3 |
| County Islands | 2,098 | 402 | 2,500 | 19.2 |
| Crest/Dehesa | 10,211 | 1,179 | 11,390 | 11.5 |
| Desert | 3,520 | 14,370 | 17,890 | 408.2 |
| Fallbrook | 44,378 | 16,702 | 61,080 | 37.6 |
| Jamul/Dulzura | 9,915 | 7,765 | 17,680 | 78.3 |
| Julian | 3,049 | 1,231 | 4,280 | 40.4 |
| Lakeside | 75,447 | 11,273 | 86,720 | 14.9 |
| Mountain Empire | 6,472 | 8,248 | 14,720 | 127.4 |
| North County Metro | 42,639 | 39,441 | 82,080 | 92.5 |
| North Mountain | 2,416 | 4,694 | 7,110 | 194.2 |
| Otay | 4,690 | 10,090 | 14,780 | 215.1 |
| Pala/Pauma Valley | 5,618 | 7,312 | 12,930 | 130.2 |
| Pendleton/De Luz | 43,792 | -7,632 | 36,160 | -17.4 |
| Rainbow | 1,815 | 1,825 | 3,640 | 100.6 |
| Ramona | 36,753 | 18,747 | 55,500 | 51.0 |
| San Dieguito | 30,489 | 2,981 | 33,470 | 9.8 |
| Spring Valley | 62,377 | 4,613 | 66,990 | 7.4 |
| Sweetwater | 13,187 | 2,303 | 15,490 | 17.5 |
| Valle de Oro | 42,743 | 2,367 | 45,110 | 5.5 |
| Valley Center | 18,269 | 21,051 | 39,320 | 115.2 |
| Unincorporated County | 491,764 | 186,506 | 678,270 | 37.9 |

(1) Source is County DPLU 2008j, unless otherwise indicated.
(2) 2008 estimated population based on SANDAG 2008d

## Table 1-5. Regional Growth Projections

| | Population Projection 2030 | Employment Projection 2030 |
|---|---|---|
| **Incorporated Cities[1]** | | |
| Carlsbad | 127,046 | 78,784 |
| Chula Vista | 316,445 | 109,780 |
| Coronado | 31,038 | 34,043 |
| Del Mar | 5,497 | 4,627 |
| El Cajon | 112,008 | 52,713 |
| Encinitas | 73,170 | 30,992 |
| Escondido | 169,929 | 69,972 |
| Imperial Beach | 36,125 | 4,792 |
| La Mesa | 64,522 | 34,444 |
| Lemon Grove | 31,175 | 8,966 |
| National City | 74,241 | 30,418 |
| Oceanside | 207,237 | 70,143 |
| Poway | 57,474 | 42,009 |
| San Diego | 1,656,257 | 1,010,157 |
| San Marcos | 95,553 | 46,121 |
| Santee | 72,115 | 22,851 |
| Solana Beach | 15,761 | 10,185 |
| Vista | 115,768 | 58,373 |
| **Surrounding Counties[2]** | | |
| Imperial County, CA | 312,316 | 125,935 |
| Orange County, CA | 3,629,539 | 1,960,633 |
| Riverside County, CA | 3,343,777 | 1,295,487 |
| Unincorporated San Diego, CA | 678,270[3] | 194,312[1] |
| **Tijuana, Mexico** | | |
| Tijuana | 3,716,132[4] | Not Available |

Sources: [1] SANDAG 2008c; [2] SCAG 2008b; [3] County DPLU 2008j; [4] IMPLAN 2009

## Table 1-6. Statewide Population Projections

| County | Population (January 1, 2008) | Projected Population (2030) | Percent Change (2008-2030) |
|---|---|---|---|
| Los Angeles | 10,363,850 | 11,920,289 | 15.0 |
| San Diego | 3,146,274 | 3,950,757 | 25.6 |
| Orange | 3,121,251 | 3,705,322 | 18.7 |
| Riverside | 2,088,322 | 3,507,498 | 68.0 |
| San Bernardino | 2,055,766 | 2,958,939 | 43.9 |
| Santa Clara | 1,837,075 | 2,192,501 | 19.3 |
| Alameda | 1,543,000 | 1,791,721 | 16.1 |
| Sacramento | 1,424,415 | 1,803,872 | 26.6 |
| Contra Costa | 1,051,674 | 1,422,840 | 35.3 |
| Fresno | 931,098 | 1,429,228 | 53.5 |
| Ventura | 831,587 | 1,049,758 | 26.2 |
| San Francisco | 824,525 | 854,675 | 3.7 |
| Kern | 817,517 | 1,352,627 | 65.5 |
| San Mateo | 739,469 | 786,069 | 6.3 |
| San Joaquin | 685,660 | 1,205,198 | 75.8 |
| Stanislaus | 525,903 | 857,893 | 63.1 |
| Sonoma | 484,470 | 606,346 | 25.2 |
| Tulare | 435,254 | 742,969 | 70.7 |
| Santa Barbara | 428,655 | 484,570 | 13.0 |
| Monterey | 428,549 | 529,145 | 23.5 |
| Solano | 426,757 | 590,166 | 38.3 |
| Placer | 333,401 | 512,509 | 53.7 |
| San Luis Obispo | 269,337 | 316,613 | 17.6 |
| Santa Cruz | 266,519 | 304,465 | 14.2 |
| Marin | 257,406 | 273,151 | 6.1 |
| Merced | 255,250 | 439,905 | 72.3 |
| Butte | 220,407 | 334,842 | 51.9 |
| Yolo | 199,066 | 275,360 | 38.3 |
| Shasta | 182,236 | 260,179 | 42.8 |
| El Dorado | 179,722 | 247,570 | 37.8 |
| Imperial | 176,158 | 283,693 | 61.0 |
| Kings | 154,434 | 250,516 | 62.2 |
| Madera | 150,887 | 273,456 | 81.2 |
| Napa | 136,704 | 191,734 | 40.3 |
| Humboldt | 132,821 | 147,217 | 10.8 |
| Nevada | 99,186 | 123,940 | 25.0 |
| Sutter | 95,878 | 182,401 | 90.2 |
| Mendocino | 90,163 | 111,151 | 23.3 |
| Yuba | 71,929 | 137,322 | 90.9 |
| Lake | 64,059 | 87,066 | 35.9 |
| Tehama | 62,419 | 93,477 | 49.8 |
| San Benito | 57,784 | 103,340 | 78.8 |
| Tuolumne | 56,799 | 67,510 | 18.9 |
| Calaveras | 46,127 | 64,572 | 40.0 |
| Siskiyou | 45,971 | 55,727 | 21.2 |

**Table 1-6 (Continued)**

| County | Population (January 1, 2008) | Projected Population (2030) | Percent Change (2008-2030) |
|---|---|---|---|
| Amador | 37,943 | 54,788 | 44.4 |
| Lassen | 35,757 | 47,240 | 32.1 |
| Del Norte | 29,419 | 42,420 | 44.2 |
| Glenn | 29,195 | 45,181 | 54.8 |
| Colusa | 21,910 | 34,488 | 57.4 |
| Plumas | 20,917 | 24,530 | 17.3 |
| Mariposa | 18,406 | 23,981 | 30.3 |
| Inyo | 18,152 | 22,132 | 21.9 |
| Trinity | 13,966 | 22,136 | 58.5 |
| Mono | 13,759 | 22,894 | 66.4 |
| Modoc | 9,702 | 16,250 | 67.5 |
| Sierra | 3,380 | 3,290 | -2.7 |
| Alpine | 1,222 | 1,462 | 19.6 |
| **Statewide Total** | 38,049,462 | 49,240,891 | 29.4 |

Source: DOF 2008c

## Table 1-7. Proposed Projects in Mexico

| Project No. | Name | Location | Description |
|---|---|---|---|
| 1 | Tijuana Sewer Rehabilitation Project | Tijuana | Project to rehabilitate or replace deteriorated sewer pipes in Tijuana |
| 2 | Potable Water and Wastewater Master Plan for Tijuana and Playas de Rosarito | Tijuana | Long-term planning strategy for water and wastewater infrastructure in the Tijuana-Playas de Rosarito area. The Plan develops and analyzes alternatives for meeting Tijuana's water and wastewater infrastructure needs over the next twenty years |
| 3 | Ensenada Port Development Project | Port of Ensenada | Development of a new container facility on Mexico's Pacific coast in the Port of Ensenada |
| 4 | Silicon Border | Mexicali, along U.S./ Mexico international border | Development of a 15-square-mile technology complex for manufacturing of semiconductors and other technology products |
| 5 | Toyota Industrial Facility | Tecate | Expansion of existing Toyota-owned industrial facility |
| 6 | Dart Container Industrial Facility | Tecate | Construction of a 1.2 million square foot industrial facility |

Sources: EPA 2009; MTBS 2009; Rodriguez 2007

## Table 1-8. 2030 San Diego Regional Transportation Plan Projects

| Project No. | Project Type |
|---|---|
| **New or Improved Transit Route** | |
| 1 | Increase in Existing Coaster Service |
| 2 | Increase in Oceanside to Escondido Rail Service |
| 3 | Temecula to Sorrento Mesa via I-15/Mira Mesa Blvd |
| 4 | Oceanside to Escondido via Palomar Airport Road |
| 5 | Northeast Oceanside to Sorrento Mesa via El Camino Real/I-5 |
| 6 | Increase in Existing Blue Line Trolley Service |
| 7 | Increase in Existing Orange Line Trolley Service |
| 8 | Mid-Coast from Old Town to Sorrento Mesa |
| 9 | Escondido to Centre City & Airport via I-15/SR 94 |
| 10 | El Cajon Blvd to Centre City |
| 11 | Old Town to Kearny Mesa via I-15/Kearny Mesa Transitway |
| 12 | Coronado and Centre City to Sorrento Mesa via Hillcrest/Genesee Avenue |
| 13 | H Street Trolley to Eastlake via Southwestern College |
| 14 | Centre City to Otay Mesa via SR 94/I-805 |
| 15 | El Cajon to Sorrento Mesa via SR 52 |
| 16 | San Ysidro to Sorrento Mesa via I-805/I-15 |
| **High Occupancy Vehicle Connector** | |
| 17 | I-5 Freeway, I-805 Intersecting Freeway, North to North & South to South Movement |
| 18 | I-15 Freeway, Intersecting with SR-78, East to South & North to West Movement |
| 19 | I-15 Intersecting with SR 94, South to West and East to North Movement |
| 20 | I-805 Intersecting with SR 52, West to North and South to East Movement |
| **Highway System Completion** | |
| 21 | I-5/I-805 from Port of Entry, Mexico |
| 22 | SR 11 from SR 905 to Mexico |
| 23 | SR 52 from 125 to SR 67 |
| 24 | SR 56 from Camino Ruiz to Carmel Country Road |
| 25 | SR 125 from SR 905 to San Miguel Road |
| 26 | SD 125 from San Miguel Road to SR 54 |
| 27 | SR 125 from Navajo Road to Grossmont Blvd |
| 28 | SR 905 from I-805 to Mexico |
| **Highway Widening, Arterials, and Freeway Interchanges** | |
| 29 | I-5, from I-805 to SR 56 Expansion to 14 Freeway Lanes |
| 30 | I-8, from 2nd Street to Los Coches, Expansion to Six Freeway Lanes |
| 31 | SR 52, from I-5 to I-805 Expansion to Six Freeway Lanes |
| 32 | SR 67, from Mapleview Street to Dye Road, Expansion to Four Conventional Highway Lanes |
| 33 | SR 75/SR 282 from Glorietta Blvd to Alameda Blvd, Expansion to Six Conventional Highway Lanes plus Two Tunnels |
| 34 | SR 76 from Melrose Drive to I-15, Expansion to Four Conventional Highway Lanes |
| 35 | SR 94 from SR 125 to Jamacha Road, Expansion to Six Freeway Lanes/Six Conventional Highway Lanes |

**Table 1-8 (Continued)**

| Project No. | Project Type |
|---|---|
| 36 | SR 94 from Jamacha Road to Steele Canyon Road, Expansion to Four Conventional Highway Lanes |
| 37 | SR 125 from SR 905 to San Miguel Road, Expansion to Eight Lane Toll Road |
| 38 | SR 125 from San Miguel Road to SR 54, Expansion to Eight Freeway Lanes |
| **Freeway Connector** | |
| 39 | Freeway I-5 Intersecting I-8, East to North And South to West |
| 40 | Freeway I-5 Intersecting SR 56, West to North And South to East |
| 41 | Freeway I-5, Intersecting SR 78, West to South And South to East |
| 42 | SR 94 Intersecting SR 125, West To North And South To East |
| **Transit Facility Improvements** | |
| 43 | Mission Valley East Trolley Extension |
| 44 | Oceanside to Escondido Rail |
| 45 | Sorrento Mesa Transitway |
| 46 | Kearny Mesa Transitway |
| 47 | Mid-Coast Light Rail |
| 48 | Oceanside-Escondido Rail Double Tracking and North County Fair Extension |
| 49 | Coastal Rail Tunnels at University City and Del Mar |
| 50 | Regional Light Rail Grade Separations |
| 51 | Early Action Project Funding |
| 52 | Improved/New Major Transit Stations and Centers |
| 53 | Direct Access Ramps to Managed/HOV Lanes |
| 54 | Vehicles for New Regional and Corridor Transit Services |
| **Arterial Transit Priority Improvements** | |
| 55 | HOV and Managed Lane Facilities |
| 56 | I-5 from SR 905 to SR 54, Addition of Two HOV Lanes |
| 57 | I-5 from SR 54 to I-8, Addition of Two HOV Lanes |
| 58 | I-5 from I-8 to I-805, Addition of Two Freeway Lanes and Two HOV Lanes |
| 59 | I-5 from I-805 to SR 56, Addition of Four Managed Lanes (HOV + Value Pricing) |
| 60 | I-5 from SR 56 to Leucadia Blvd, Addition of Two Freeway Lanes and Four Managed Lanes |
| 61 | I-5 from Leucadia Blvd to Vandegrift Blvd, Addition Of Four Managed Lanes |
| 62 | I-8 from SR 125 to SR 67, Addition of 2 HOV Lanes |
| 63 | I-8 from SR 67 To 2nd Street, Addition of 2 HOV Lanes |
| 64 | I-15 from SR 94 to SR 163, Addition of Two Freeway Lanes and Two HOV Lanes |
| 65 | I-15 from 163 to SR 56, Addition of Two Freeway Lanes and Four Managed Lanes with Moveable Barriers |
| 66 | I-15 from SR 56 to Centre City Pkwy, Addition of Four Managed Lanes with Movable Barriers |
| 67 | I-15 from Centre City Parkway to SR 78, Addition of Four Managed Lanes |
| 68 | SR 52 from I-805 to I-15, Addition of Two HOV Lanes |
| 69 | SR 52 from I-15 to SR 125, Addition of Two Freeway Lanes and Two Reversible Managed Lanes |
| 70 | SR 56 from I-5 to I-15, Addition of Two Freeway Lanes and Two HOV Lanes |
| 71 | SR 78 from I-5 to I-15, Addition of Two Freeway Lanes and Two HOV Lanes |
| 72 | SR 94/SR 125 from I-5 to I-8, Addition of Two HOV Lanes |
| 73 | SR 241 from Orange County to I-5, Addition Of 4 Lane Toll Road with Two HOV Lanes |

**Table 1-8 (Continued)**

| Project No. | Project Type |
|---|---|
| 74 | I-805 from SR-905 to SR 54, Addition Of Four Managed Lanes |
| 75 | I-805 from SR-54 to I-8, Addition of Four Managed Lanes |
| 76 | I-805 from Mission Valley Viaduct, Addition of Four Managed Lanes |
| 77 | I-805 from I-8 to I-5, Addition of Four Managed Lanes |
| **International Transportation Projects** | |
| 78 | Re-open the Only Rail Link to the East Via the San Diego and Arizona Eastern Railway |
| 79 | Expansion of Port Facilities at Port of San Diego |
| 80 | Expansion of Port Facilities at Port of Ensenada |
| 81 | Future Rail Line Linking Ensenada and its Port with Tecate |
| 82 | SR 905 to Connect I-5 and I-805 to the Otay Mesa Port Of Entry |
| 83 | Future SR 125 Tollway that will Connect the Otay Mesa Port of Entry with the San Diego Regional and Interregional Highway Network |
| 84 | Future SR 11 Link to the Proposed East Otay Mesa Border Crossing |
| 85 | Potential Border Crossing in Jacumba and East Otay Mesa |

Source: SANDAG 2007

## Table 1-9. CEC List of Regional Energy Projects

| Project No. | Name | Location | Description | Projected Completion Date |
|---|---|---|---|---|
| 1 | Inland Empire Energy Center, LLC | Riverside County | 670 MW natural gas-fired, combined-cycle electric generating facility | August 2008 |
| 2 | Otay Mesa Generating Project | Western San Diego County | 510 MW natural gas-fired, combined cycle power plant | May 2009 |
| 3 | Salton Sea Geothermal | Imperial County | 185 MW geothermal steam turbine electric generating facility | Currently on-hold |
| 4 | Blythe II Combined Cycle-Blythe Energy, LLC | Riverside County | 520 MW combined-cycle power plant | Unknown |
| 5 | Sun Valley Energy Project | Riverside County | 500 MW simple-cycle power plant consisting of five General Electric LMS100 natural gas-fired turbine-generators and associated equipment | Unknown |
| 6 | CPV Sentinel Energy Project | Riverside County | 850 MW electrical generating facility with eight natural gas-fired combustion turbine generators | May 2010 |
| 7 | MMC Chula Vista Expansion – MMC Energy Inc. | San Diego County | 110 MW simple-cycle electrical power plant facility | December 2009 |
| 8 | Carlsbad – NRG | San Diego County | Fast-start, high-efficiency, combined-cycle facility to support SDG&E | June 2011 |
| 9 | Canyon Power Plant – Southern California Power Authority | Orange County | 200 MW simple-cycle plant with four natural gas-fired combustion turbines and associated infrastructure | June 2010 |
| 10 | Stirling Solar Thermal Two | Imperial County | 900 MW capacity | Unknown |

Source: CEC 2008

## Table 1-10. CPUC Current Projects

| Project No. | Name | Location | Description | Date Application Submitted to CPUC |
|---|---|---|---|---|
| 1 | Devers-Mirage 115 kV Subtransmission Split | Incorporated and Unincorporated Riverside County | Replacement of 5.3 miles of single-circuit 115 kV subtransmission lines, construction of new 115 kV transmission lines, installation of one new 280 megavolt amperes (MVA) 220/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers | January 31, 2008 |
| 2 | Ivyglen Project | Riverside County | Construction of a new 25-mile 115 kV subtransmission line And improvements to existing facilities to accommodate subtransmission line tie-in | April 30, 2007 |
| 3 | Replacement of Steam Generators at San Onofre Nuclear Generating Station | San Diego County | Replace the San Onofre Nuclear Generating Station Units 2 and 3 steam generators, establish ratemaking for cost recovery, and address related steam generator replacement issues | February 27, 2004 |
| 4 | Silvergate Transmission Substation Project | San Diego County | Replace existing 139/69 kV substation (Main Street) with new 230/69 kV substation (Silvergate) | September 2006 |
| 5 | Sunrise Powerlink Project | San Diego and Imperial Counties | Construction of a new 90-mile, 500 kV line from Imperial Valley Substation to Central East Substation and construction of 60 miles of new transmission lines, from Central East Substation to Penasquitos Substation | August 2006 |
| 6 | Nevada Hydro Company's Talega-Escondido/ Valley-Serrano 500 kV Interconnect Project | Riverside and San Diego Counties | Construction a 30-mile of a 500 kV transmission line with design capacity of 1000 MW | October 2007 |

Source: CPUC 2008

## Table 1-11. Projects Not Included in the Proposed General Plan Update Land Use Map

| Project No. | Project Name | Required Approvals | Community | Dwelling Units | Acres |
|---|---|---|---|---|---|
| 1 | Park Alpine (TM 5433) | TM | Alpine | 41 | 117.54 |
| 2 | Rancho Nuevo (TM 5475) | TM | Alpine | 18 | 60.14 |
| 3 | Mckany (TPM 21044) | TPM | Alpine | 4 | 1.53 |
| 4 | Daoud Subdivision (TPM 20832) | TPM | Alpine | 3 | 23.91 |
| 5 | West Lilac Farms I & II (TM 5276) | TM | Bonsall | 34 | 92.00 |
| 6 | Dabbs (TM 5346) | TM | Bonsall | 9 | 38.37 |
| 7* | Merriam Mountains (GPA 04-006)(1) | GPA/SP/TM/REZ | N. County Metro and Bonsall | 2700 | 2,327.00 |
| 8 | Brisa Del Mar (TM 5492) | TM/ | Bonsall | 27 | 206.00 |
| 9* | Tabata (TPM 20729) | TPM | Bonsall | 4 | 33.75 |
| 10 | Cunningham (TPM 20788) | TPM | Bonsall | 3 | 26.11 |
| 11 | Stehly Caminito Quieto (TPM 20799) | TPM | Bonsall | 4 | 11.69 |
| 12 | Tran (TPM 20835) | TPM | Bonsall | 5 | 16.86 |
| 13* | Northcutt, (TPM 20860) | TPM | Bonsall | 2 | 11.77 |
| 14 | Pfaff (TPM 21016) | TPM | Bonsall | 2 | 7.79 |
| 15* | Dienhart (TPM 20664) | TPM | Bonsall | 3 | 28.36 |
| 16 | Marquart Ranch (TM 5410) | TM | Bonsall | 9 | 44.20 |
| 17 | Twin Oaks 4 (TPM 20954) | TPM | Bonsall | 4 | 37.93 |
| 18 | Palisades Estates (TM 5158) | TM | Bonsall | 38 | 408.40 |
| 19 | Kendall Family Trust (TPM 20849) | TPM | Bonsall | 2 | 5.01 |
| 20 | Yaqui Pass (TM 5552) | TM | Borrego Springs | 330 | 534.43 |
| 21 | Pine Creek Ranch (TM 5236) | TM | Central Mountain | 19 | 109.08 |
| 22 | Pine Valley Park Estates (SP 03-001) | GPA/SP/REZ/TM | Central Mountain | 22 | 38.30 |
| 23 | The Slope (TPM 20765) | TPM | Central Mountain | 4 | 35.00 |
| 24 | Kenyon (TPM 20857) | TPM | Central Mountain | 3 | 15.88 |
| 25 | Shellstrom, (TPM 21094) | TPM | Central Mountain | 4 | 23.04 |
| 26* | 4740 Dehesa Road/Sloan Canyon Road (TM 5485) | TM | Crest/Dehesa | 10 | 31.89 |
| 27 | Kemerko (TPM 20716) | TPM | Crest/Dehesa | 5 | 93.10 |
| 28* | Price (TPM 20762) | TPM | Crest/Dehesa | 3 | 24.30 |
| 29 | Walls (TPM 21008) | TPM | Crest/Dehesa | 5 | 72.00 |
| 30 | Kearney (TPM 20715) | TPM | Crest/Dehesa | 3 | 13.30 |
| 31 | Williams (TPM 20875) | TPM | Crest/Dehesa | 2 | 9.00 |
| 32 | Bursztyn (TPM 20840) | TPM | Crest/Dehesa | 4 | 23.52 |
| 33 | Woodhead (TPM 20541) | TPM | Crest/Dehesa | 4 | 24.00 |
| 34 | Mesquite Trails Ranch (SP 04-004) | SP/TM/MUP | Desert | 480 | 309.51 |
| 35 | Borrego Country Club Estates (TM 5487)(1) | TM | Desert | 148 | 172.07 |
| 36 | Borrego 50 (TM 5511)(1) | TM | Desert | 34 | 50.09 |
| 37 | Borrego Springs Senior Condominiums (TM 5512) | TM | Desert | 122 | 5.24 |
| 38 | Yaqui Pass (TPM 5513)(1) | TPM | Desert | 72 | 33.10 |

**Table 1-11 (Continued)**

| Project No. | Project Name | Required Approvals | Community | Dwelling Units | Acres |
|---|---|---|---|---|---|
| 39 | Inland Land Development (TM 5528) | TM | Desert | 331 | 136.67 |
| 40 | Desert Diamond (TPM 21017) | TPM | Desert | 5 | 169.84 |
| 41 | Bowen/Jonas (TPM 21027) | TPM | Desert | 5 | 80.00 |
| 42 | Henderson Canyon (TPM 21058) | TPM | Desert | 4 | 114.90 |
| 43 | Nickerson (TPM 2111) | TPM | Fallbrook | 2 | 0.78 |
| 44 | Chandler (TM 5284) | TM | Fallbrook | 12 | 80.00 |
| 45 | Passerelle, Campus Park (SP 03-004)[(1)] | GPA/SPA/REZ/TM | Fallbrook | 1088 | 500.00 |
| 46 | Meadowood (GPA 04-002) | GPA/SP/REZ/TM | Fallbrook | 886 | 390.00 |
| 47 | Fallbrook Oaks (GPA 05-006) | GPA/TM/REZ | Fallbrook | 18 | 26.40 |
| 48 | Fallbrook Ranch (TM 5532) | TM | Fallbrook | 11 | 41.00 |
| 49* | Alba (TPM 21120) | TPM | Fallbrook | 4 | 35.56 |
| 50 | Campus Park West (GPA 05-003)[(1)] | GPA/SPA/REZ/TM | Fallbrook | 355 | 116.00 |
| 51 | Pala Mesa Resort (SPA 03-005) | SPA/TM | Fallbrook | 144 | 181.00 |
| 52 | Hoskings Ranch, Genesee Properties (TM 5312) | TM | Jamul/Dulzura | 33 | 1,417.40 |
| 53 | Preski/Gonya (TPM 20720) | TPM | Jamul/Dulzura | 4 | 40.33 |
| 54 | Pijnenburg (TPM 20778) | TPM | Jamul/Dulzura | 5 | 76.40 |
| 55* | Jamul (TPM 20786) | TPM | Jamul/Dulzura | 1 | 43.69 |
| 56 | Hoskings Ranch Road (TPM 20863) | TPM | Jamul/Dulzura | 3 | 150.27 |
| 57* | Swift (TMP 20903 | TPM | Jamul/Dulzura | 1 | 16.42 |
| 58 | Skyline Truck Trail (TPM 21028) | TPM | Jamul/Dulzura | 5 | 47.78 |
| 59* | Ave Loma III (TPM 21039) | TPM | Jamul/Dulzura | 4 | 87.90 |
| 60 | Allen (TPM 21045) | TPM | Jamul/Dulzura | 2 | 24.14 |
| 61 | Hamilton (TPM 21060) | TPM | Jamul/Dulzura | 2 | 24.29 |
| 62 | Renteria (TPM 21107) | TPM | Jamul/Dulzura | 4 | 60.38 |
| 63 | Tibbot (TPM 20686) | TPM | Jamul/Dulzura | 4 | 35.51 |
| 64 | Robnett (TPM 20726) | TPM | Jamul/Dulzura | 5 | 85.95 |
| 65* | Titus Project (TPM 20965) | TPM | Jamul/Dulzura | 3 | 11.10 |
| 66 | Los Coches Development LLC (TM 5306) | TM | Lakeside | 73 | 78.80 |
| 67 | Schmidt Project (TM 5434) | TM | Lakeside | 4 | 114.94 |
| 68* | Magnolia Courts (GPA 07-009) | GPA/TM/REZ | Lakeside | 38 | 5.19 |
| 69 | Hiel (TPM 20925) | TPM | Lakeside | 2 | 0.71 |
| 70 | Parkside Villa (TPM 21048) | TPM | Lakeside | 3 | 0.00 |
| 71 | Bradley Avenue (TM 5422) | TM | Lakeside | 30 | 1.25 |
| 72 | Lakeside (TPM 20916) | TPM | Lakeside | 3 | 1.21 |
| 73 | Harvest Glen (TM 5366) | TM | Mountain Empire | 40 | 284.43 |
| 74 | Vaughan (TM 5417) | TM | Mountain Empire | 13 | 81.15 |
| 75 | Star Ranch (GPA 05-008) | GPA/SP/REZ/TM | Mountain Empire | 460 | 2,160.00 |
| 76 | Potrero Valley Road (TM 5484) | TM | Mountain Empire | 8 | 73.50 |
| 77 | Arellano (TPM 20756) | TPM | Mountain Empire | 3 | 17.27 |

**Table 1-11 (Continued)**

| Project No. | Project Name | Required Approvals | Community | Dwelling Units | Acres |
|---|---|---|---|---|---|
| 78* | Garza (TPM 20777) | TPM | Mountain Empire | 5 | 53.33 |
| 79* | Bennett (TPM 20784) | TPM | Mountain Empire | 5 | 47.53 |
| 80* | Powell Subdivision (TPM 20798) | TPM | Mountain Empire | 4 | 40.00 |
| 81 | Volli (TPM 20889) | TPM | Mountain Empire | 4 | 40.00 |
| 82 | Elder (TPM 20981) | TPM | Mountain Empire | 5 | 109.25 |
| 83 | Heald Development (TPM 21014) | TPM | Mountain Empire | 5 | 36.00 |
| 84 | Davis-Inman (TPM 21081) | TPM | Mountain Empire | 4 | 97.00 |
| 85 | Grizzle (TPM 20719) | TPM | Mountain Empire | 5 | 245.00 |
| 86 | Bartlett (TPM 20754) | TPM | Mountain Empire | 4 | 164.70 |
| 87 | Jacumba Valley Ranch (GPA 06-014)[1] | GPA/SP/REZ/TM | Mountain Empire | 2125 | 1,216.00 |
| 88 | Sugarbush (GPA 05-010) | GPA/SP/REZ/TM | N. County Metro | 53 | 115.50 |
| 89 | Kawano Subdivision (TM 5401) | TM | N. County Metro | 9 | 10.27 |
| 90* | Tai Estates (TM 5409) | TM | N. County Metro | 11 | 46.88 |
| 91* | Harmony Grove Meadows (GPA 05-004) | GPA/SP/REZ/TM | N. County Metro | 207 | 111.09 |
| 92 | Pizzuto Property (TPM 20846) | TPM | N. County Metro | 3 | 40.00 |
| 93 | Montiel Road Townhomes (GPA 04-007) | GPA/TM | N. County Metro | 70 | 4.86 |
| 94 | Rimsa TPM (TPM 21095) | TPM | N. County Metro | 2 | 12.50 |
| 95 | Ranchita Subdivision (TM 5516) | TM | North Mountain | 13 | 147.88 |
| 96* | Los Robles Ranch (TM 5526) | TM | North Mountain | 15 | 646.00 |
| 97 | Shadow Run Ranch LLC (TM 5223) | TM | Pala/Pauma | 46 | 263.17 |
| 98* | The Prominence at Pala (TM 5321) | TM | Pala/Pauma | 37 | 413.93 |
| 99* | Pala 114 (TM 5497) | TM | Pala/Pauma | 11 | 113.89 |
| 100* | Pauma Ranches (TM 5506) | TM | Pala/Pauma | 22 | 99.83 |
| 101 | Warner Ranch (GPA 06-009) | GPA/SP/TM/REZ/MUP | Pala/Pauma | 900 | 430.00 |
| 102* | Ruffin/Johnson (TPM 20725) | TPM | Pala/Pauma | 5 | 73.11 |
| 103 | Donald Jenkins (TPM 21023) | TPM | Pala/Pauma | 2 | 10.35 |
| 104* | Jay Long (TPM 21066) | TPM | Pala/Pauma | 2 | 17.75 |
| 105 | Pala Pauma (TPM 20611) | TPM | Pala/Pauma | 4 | 54.66 |
| 106 | Wexler (TPM 20913) | TPM | Pala/Pauma | 4 | 4.80 |
| 107 | Townsend (TPM 20736) | TPM | Pendleton/De Luz | 4 | 20.00 |
| 108* | Tenaja (TPM 21049) | TPM | Pendleton/De Luz | 2 | 27.75 |
| 109 | Herod (TPM 21121) | TPM | Potrero | 2 | 37.53 |
| 110* | Oswald (TPM 20533) | TPM | Rainbow | 4 | 47.20 |
| 111* | Brown (TPM 20717) | TPM | Rainbow | 4 | 31.18 |
| 112 | Silvola (TPM 20658) | TPM | Rainbow | 3 | 26.16 |
| 113 | M.D.S. Dev. Corp./Deca (TM 4962) | TM | Ramona | 30 | 75.00 |
| 114 | Ramona Ridge Estates (TM 5008) | TM | Ramona | 25 | 219.35 |
| 115 | Rancho Esquilago (TM 5198) | TM | Ramona | 38 | 147.68 |
| 116 | Development Venture (TM 5254) | TM | Ramona | 67 | 327.00 |

**Table 1-11 (Continued)**

| Project No. | Project Name | Required Approvals | Community | Dwelling Units | Acres |
|---|---|---|---|---|---|
| 117 | Valley Park Condominiums (TM 5480) | TM | Ramona | 62 | 2.87 |
| 118* | McCandless (TPM 20564) | TPM | Ramona | 5 | 41.00 |
| 119 | Kvaas (TPM 20747) | TPM | Ramona | 5 | 60.00 |
| 120* | Edbell Parcel Map (TPM 20900) | TPM | Ramona | 1 | 96.42 |
| 121 | Neuman (TPM 20962) | TPM | Ramona | 4 | 39.40 |
| 122* | Spitsbergen (TPM 21042) | TPM | Ramona | 3 | 137.53 |
| 123 | Filippini Parcel Map (TPM 20926) | TPM | Ramona | 2 | 9.35 |
| 124 | Sunset Vista (TM 5257) | TM | Ramona | 7 | 9.57 |
| 125 | Roberts (TM 5267) | TM | Ramona | 8 | 50.62 |
| 126 | Ramona (TPM 20466) | TPM | Ramona | 2 | 19.82 |
| 127 | Teyssier (TM 5194) | TM | Ramona | 37 | 289.00 |
| 128* | Highland Valley (TPM 21051) | TPM | Ramona | 3 | 38.00 |
| 129 | Victoria Shangrila (TM 5261) | TM | San Dieguito | 38 | 79.67 |
| 130 | Starwood Santa Fe Valley (TM 5556) | TM | San Dieguito | 8 | 10.00 |
| 131 | Oakrose Ranch (TM 5204) | TM | San Dieguito | 10 | 39.66 |
| 132 | Fuerte Ranch Estates (GPA 03-006) | GPA/REZ/TM | Valle De Oro | 40 | 26.89 |
| 133 | Spanish Trails (Loranda) (TM 5173) | TM | Valley Center | 175 | 435.39 |
| 134 | Brook Forest (GPA 03-008) | GPA/SP/TM | Valley Center | 84 | 225.56 |
| 135 | Beauvais/Old Castle (TM 5315) | TM | Valley Center | 11 | 23.16 |
| 136 | Rancho Lilac (GPA 04-008) | GPA/SP/REZ/TM/MUP | Valley Center | 360 | 693.49 |
| 137* | Orchard Vista (TM 5507) | TM | Valley Center | 11 | 25.24 |
| 138 | Castle Creek Condominiums (GPA 06-011) | GPA/SPA/TM/REZ | Valley Center | 63 | 57.79 |
| 139 | McNally Road Parcel Map (TPM 21004) | TPM | Valley Center | 4 | 78.30 |
| 140 | Sukup (TM 5184) | TM | Valley Center | 9 | 24.62 |
| 141 | Garcia T.S.M. (TM 5458) | TM | Valley Center | 8 | 17.40 |
| 142 | Calle De Encinas (TPM 20780) | TPM | Valley Center | 3 | 14.39 |
| 143 | S.R. Polito Family Partnership LTD (TM 5001) | TM | Valley Center | 18 | 69.20 |
| 144 | Crews Development Valley Center Road (TPM 20828) | TPM | Valley Center | 4 | 9.71 |
| 145 | Fitzpatrick (TPM 20842) | TPM | Valley Center | 4 | 10.72 |
| 146* | Robinson (TMP 21105) | TPM | Valley Center | 4 | 11.00 |
| 147 | Goodnight Ranchos (TPM 21101) | TPM | Valley Center | 2 | 5.00 |
| 148 | Hancey TPM (TPM 20999) | TPM | Valley Center | 4 | 14.75 |

GPA = General Plan Amendment; MUP = Major Use Permit; REZ = Rezone; SP = Specific Plan; SPA = Specific Plan Amendment; TM = Tentative Map; TPM = Tentative Parcel Map

(1) Includes a Commercial or Industrial Component

(*) Denotes projects that, as of 2011, are no longer foreseeable due to disapproved or withdrawn permit applications. However, build-out of these projects was included in the cumulative impact analysis.

Notes: Communities with active projects having a total increase of less than 10 units were not included in the Cumulative Impacts Traffic Model. This table includes both approved and active projects that are inconsistent with the General Plan Update.

Source: County DPLU 2008n

## Table 1-12. Projects on Tribal Lands in San Diego County

| Project No. | Project Name | Size |
|---|---|---|
| **Campo Reservation** | | |
| 1 | Gaming Area expansion | 17,800 SF |
| 2 | Hotel | 150 rooms |
| 3 | Hotel (Phase II Expansion) | 100 rooms |
| 4 | RV Parking | 80 spaces |
| 5 | Bowling Center | 16 lanes |
| 6 | Entertainment Hall | 20,000 SF |
| 7 | Casino Administrative Office | 4,250 SF |
| 8 | Restaurant | 2,500 SF |
| **Ewiiaapaay Reservation** | | |
| 9 | Gaming Area | 80,500 SF |
| 10 | Health Clinic | 26,500 SF |
| **Jamul Reservation** | | |
| 11 | Gaming Area | 73,469 SF |
| 12 | Hotel | 400 rooms |
| 13 | Event Center | 1,200 seats |
| **La Jolla Reservation** | | |
| 14 | Casino | 35,000 SF |
| 15 | Hotel | 150 rooms |
| **Pala Reservation** | | |
| 16 | Gaming Area expansion | 50,500 SF |
| 17 | Hotel expansion | 50 rooms |
| 18 | Motocross Raceway | Unknown |
| **Pauma and Yuima Reservation** | | |
| 19 | Gaming Area expansion | 41,100 SF |
| 20 | Hotel | 400 rooms |
| 21 | Retail Shops | 4,000 SF |
| 22 | Event Center | 34,000 SF |
| **San Pasqual Reservation** | | |
| 23 | Hotel | 161 rooms |
| 24 | Outdoor Concert Venue | 2,000 seats |
| **Sycuan Reservation** | | |
| 25 | Gaming Area expansion | 140,835 SF |
| 26 | Hotel | 557 rooms |
| 27 | Single Family Homes | 74 units |
| 28 | Equestrian Center | |
| 29 | RV Park | 85 spaces |
| **Viejas Reservation** | | |
| 30 | New Casino | 100,000 SF |
| 31 | Hotel | 600 rooms |
| 32 | Multiplex Movie Theater | 1,000 seats |
| 33 | Concert Venue | 12,000 seats |

SF = square feet
Source: County DPLU 2008n

## Table 1-13. Environmental Baselines Used in the DEIR

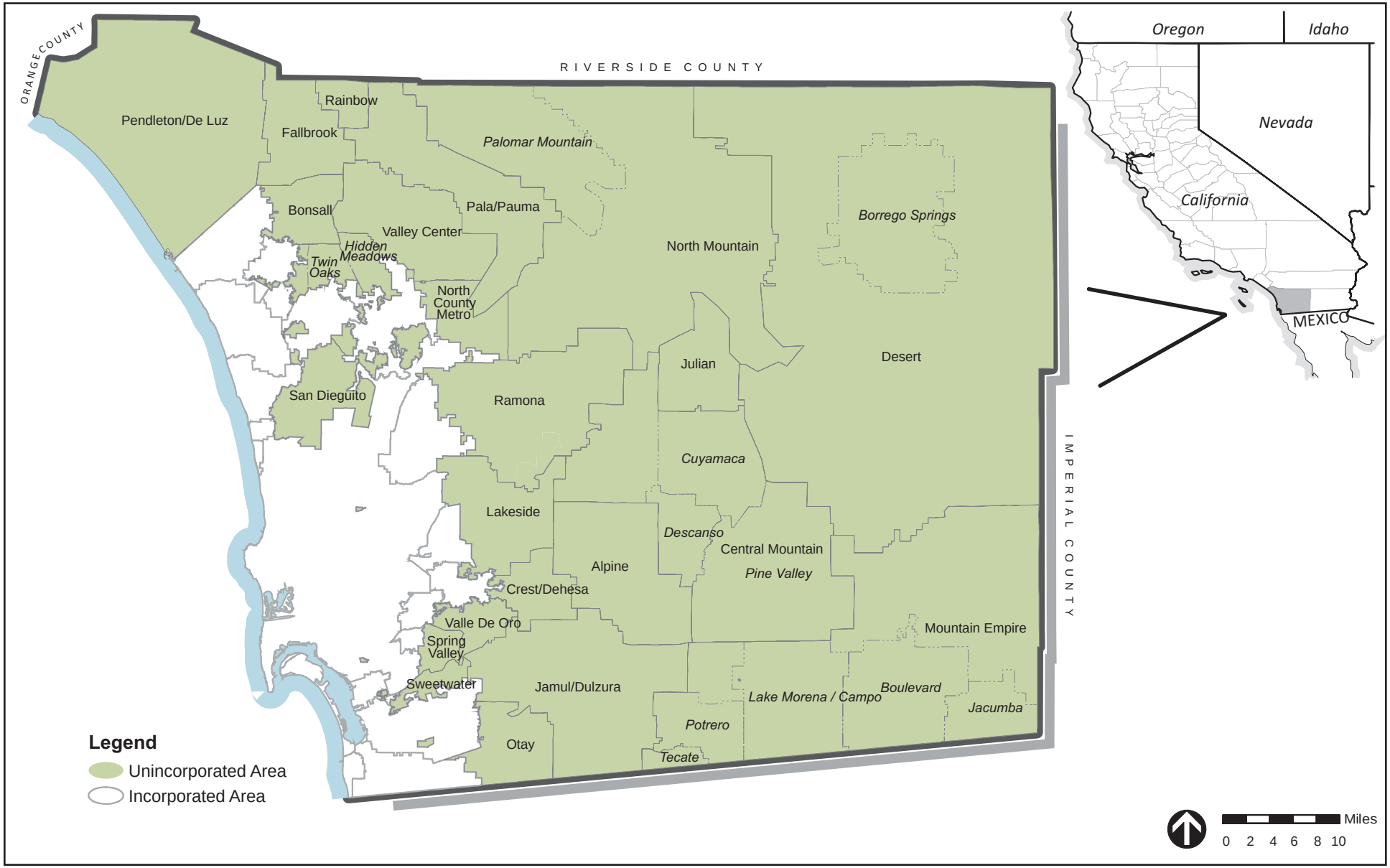
| Environmental Topic/Issue | Baseline |
|---|---|
| **2.1 Aesthetics** | |
| Issue 1: Scenic Vistas | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Scenic Resources | |
| Issue 3: Visual Character or Quality | |
| Issue 4: Light or Glare | |
| **2.2 Agricultural Resources** | |
| Issue 1: Conversion of Agricultural Resources | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Land Use Conflicts | |
| Issue 3: Indirect Conversion of Agricultural Resources | |
| **2.3 Air Quality** | |
| Issue 1: Air Quality Plans | 2004, the most recent update of the San Diego County Regional Air Quality Strategy available during EIR preparation. |
| Issue 2: Air Quality Violations | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 3: Non-Attainment Criteria Pollutants | |
| Issue 4: Sensitive Receptors | 2000, the baseline year for the most recent estimation of background cancer risk available from CARB for San Diego County. |
| Issue 5: Objectionable Odors | April 2008, when the NOP for the General Plan Update EIR was published. |
| **2.4 Biological Resources** | |
| Issue 1: Special Status Species | April 2008, the publication date of the Multiple Species Conservation Program and the NOP for the General Plan Update EIR. |
| Issue 2: Riparian Habitats and Other Sensitive Natural Communities | |
| Issue 3: Federally Protected Wetlands | |
| Issue 4: Wildlife Movement Corridors | |
| Issue 5: Local Policies and Ordinances | |
| Issue 6: Habitat Conservation Plans and Natural Community Conservation Plans | |
| **2.5 Cultural and Paleontological Resources** | |
| Issue 1: Historical Resources | September 2008, when the Julian Historic Survey was completed. |
| Issue 2: Archaeological Resources | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 3: Paleontological Resources | |
| Issue 4: Human Remains | |
| **2.6 Geology and Soils** | |
| Issue 1: Exposure to Seismic-Related Hazards | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Soil Erosion or Topsoil Loss | |
| Issue 3: Soil Stability | |
| Issue 4: Expansive Soils | |
| Issue 5: Waste Water Disposal Systems | |

**Table 1-13 (Continued)**

| Environmental Topic/Issue | Baseline |
|---|---|
| Issue 6: Unique Geologic Features | 2007, when the Natural Resources Inventory of San Diego County was completed. |
| **2.7 Hazards and Hazardous Materials** | |
| Issue 1: Transport, Use and Disposal of Hazardous Materials | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Accidental Release of Hazardous Materials | |
| Issue 3: Hazards to Schools | |
| Issue 4: Existing Hazardous Materials Sites | |
| Issue 5: Public Airports | |
| Issue 6: Private Airports | |
| Issue 7: Emergency Response and Evacuation Plans | |
| Issue 8: Wildland Fires | |
| Issue 9: Vectors | |
| **2.8 Hydrology and Water Quality** | |
| Issue 1: Water Quality Standards and Requirements | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Groundwater Supplies and Recharge | 2008, the baseline year for the General Plan Update Groundwater Study. |
| Issue 3: Erosion or Siltation | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 4: Flooding | |
| Issue 5: Exceed Capacity of Stormwater Systems | |
| Issue 6: Housing within a 100-year Flood Hazard Area | |
| Issue 7: Impeding or Redirecting Flood Flows | |
| Issue 8: Dam Inundation and Flood Hazards | |
| Issue 9: Seiche, Tsunami and Mudflow Hazards | |
| **2.9 Land Use** | |
| Issue 1: Physical Division of an Established Community | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Conflicts with Land Use Plans, Policies, and Regulations | |
| Issue 3: Conflicts with Habitat Conservation Plans and Natural Community Conservation Plans | |
| **2.10 Mineral Resources** | |
| Issue 1: Mineral Resource Availability | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Mineral Resource Recovery Sites | |
| **2.11 Noise** | |
| Issue 1: Excessive Noise Levels | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Excessive Groundborne Vibration | |
| Issue 3: Permanent Increase in Ambient Noise Levels | March 2008, when the Community Noise Survey was conducted. |
| Issue 4: Temporary Increase in Ambient Noise Levels | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 5: Excessive Noise Exposure from a Public or Private Airport | |

**Table 1-13 (Continued)**

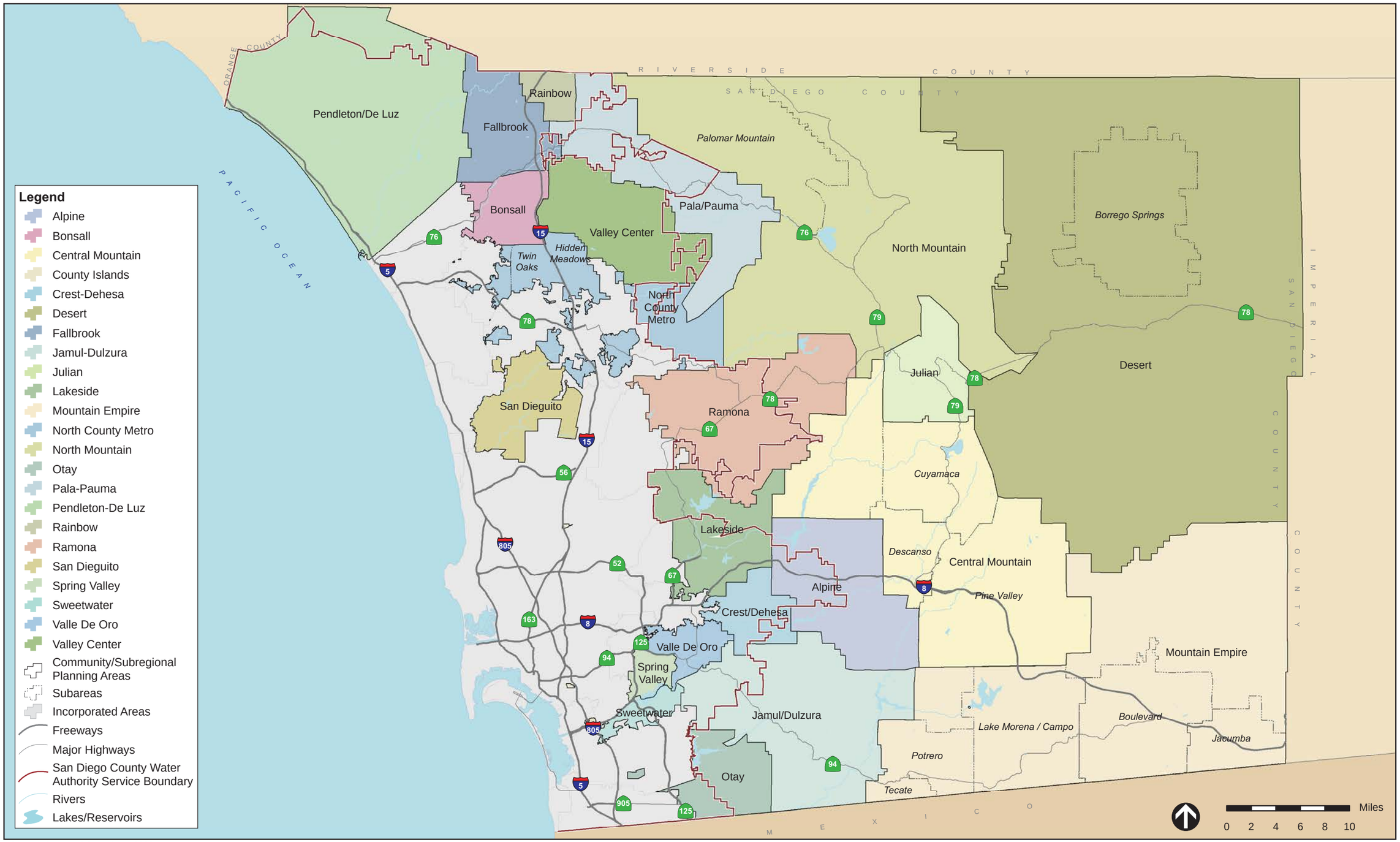
| Environmental Topic/Issue | Baseline |
|---|---|
| **2.12 Population and Housing** | |
| Issue 1: Population Growth | July 2008, when SANDAG released updated population forecasts for 2030. |
| Issue 2: Displacement of Housing | 2005, the baseline year for the San Diego County Population Forecast Model and the General Plan Update Housing Element. |
| Issue 3: Displacement of People | |
| **2.13 Public Services** | |
| Issue 1: Fire Protection Services | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Police Protection Services | |
| Issue 3: School Services | |
| Issue 4: Other Public Services | |
| **2.14 Recreation** | |
| Issue 1: Deterioration of Parks and Recreational Activities | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: Construction of New Recreational Facilities | |
| **2.15 Transportation and Traffic** | |
| Issue 1: Unincorporated County Traffic and LOS Standards | 2007, the baseline year of the traffic model used for the County of San Diego General Plan Update Traffic and Circulation Assessment. |
| Issue 2: Adjacent Cities Traffic and LOS Standards | |
| Issue 3: Rural Road Safety | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 4: Emergency Access | |
| Issue 5: Parking Capacity | |
| Issue 6: Alternative Transportation | |
| **2.16 Utilities and Service Systems** | |
| Issue 1: Wastewater Treatment Requirements | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 2: New Water or Wastewater Treatment Facilities | |
| Issue 3: Sufficient Stormwater Drainage Facilities | |
| Issue 4: Adequate Water Supplies | 2004, the baseline year for the 2005 Urban Water Management Plans prepared for the water districts that serve the County. |
| Issue 5: Adequate Wastewater Facilities | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 6: Sufficient Landfill Capacity | 2005, when the most recent San Diego County Integrated Waste Management Plan was published. |
| Issue 7: Solid Waste Regulations | April 2008, when the NOP for the General Plan Update EIR was published. |
| Issue 8: Energy | |
| **2.17 Global Climate Change** | |
| Issue 1: Compliance with AB 32 | 2006, the baseline year for the regional GHG inventory published by the University of San Diego School of Law Energy Policy Initiative Center. |
| Issue 2: Potential Effects of Climate Change on the Proposed General Plan Update | November 2008, when the *San Diego Foundation Regional Focus 2050 Study: Climate Change Related Impacts in the San Diego Region by 2050* was published. |




Source: County of San Diego DPLU GIS and SanGIS, 2009

# REGIONAL LOCATION MAP

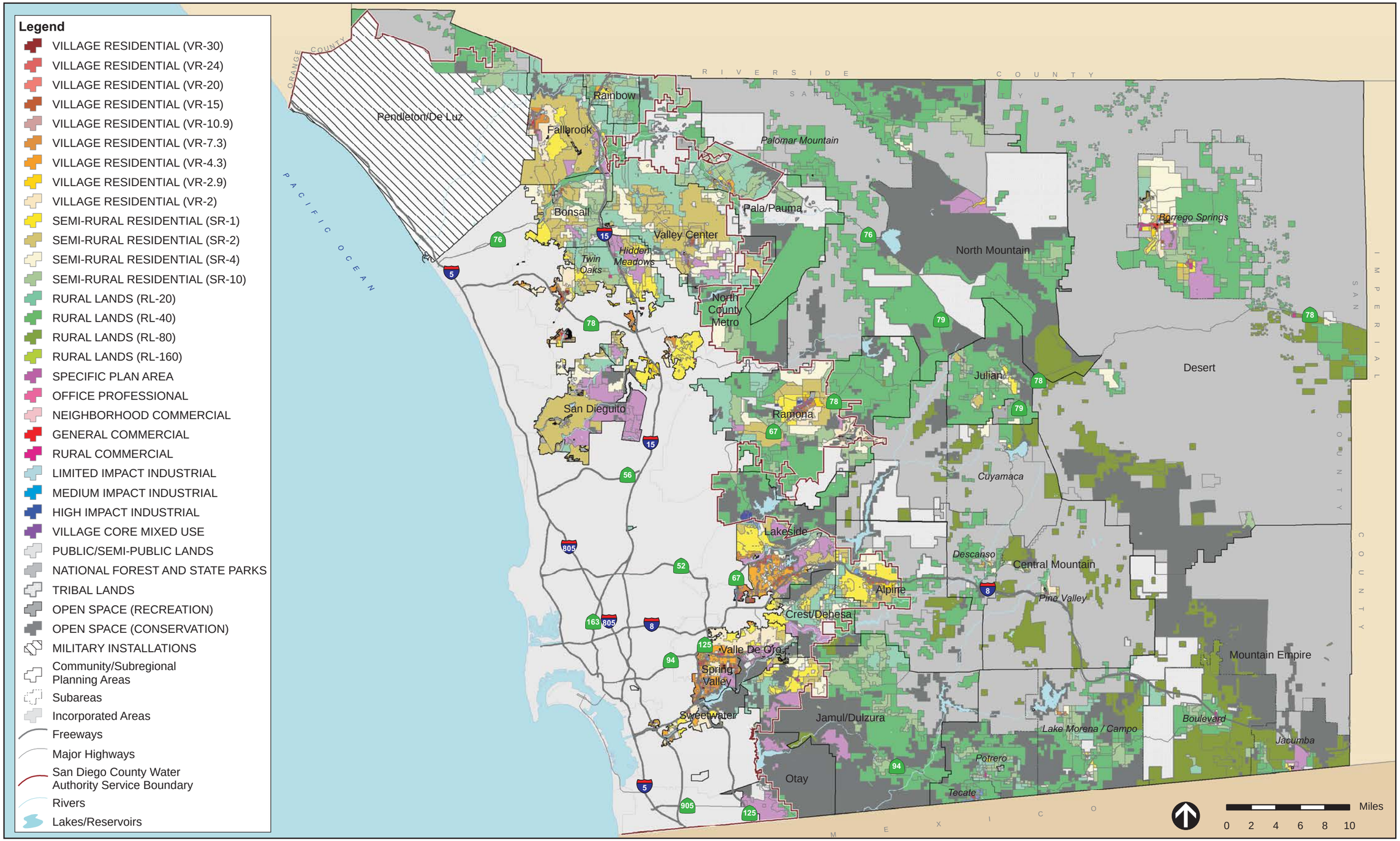
# FIGURE 1-1




Source: County of San Diego, 2008

## COMMUNITY AND SUBREGIONAL PLANNING AREAS

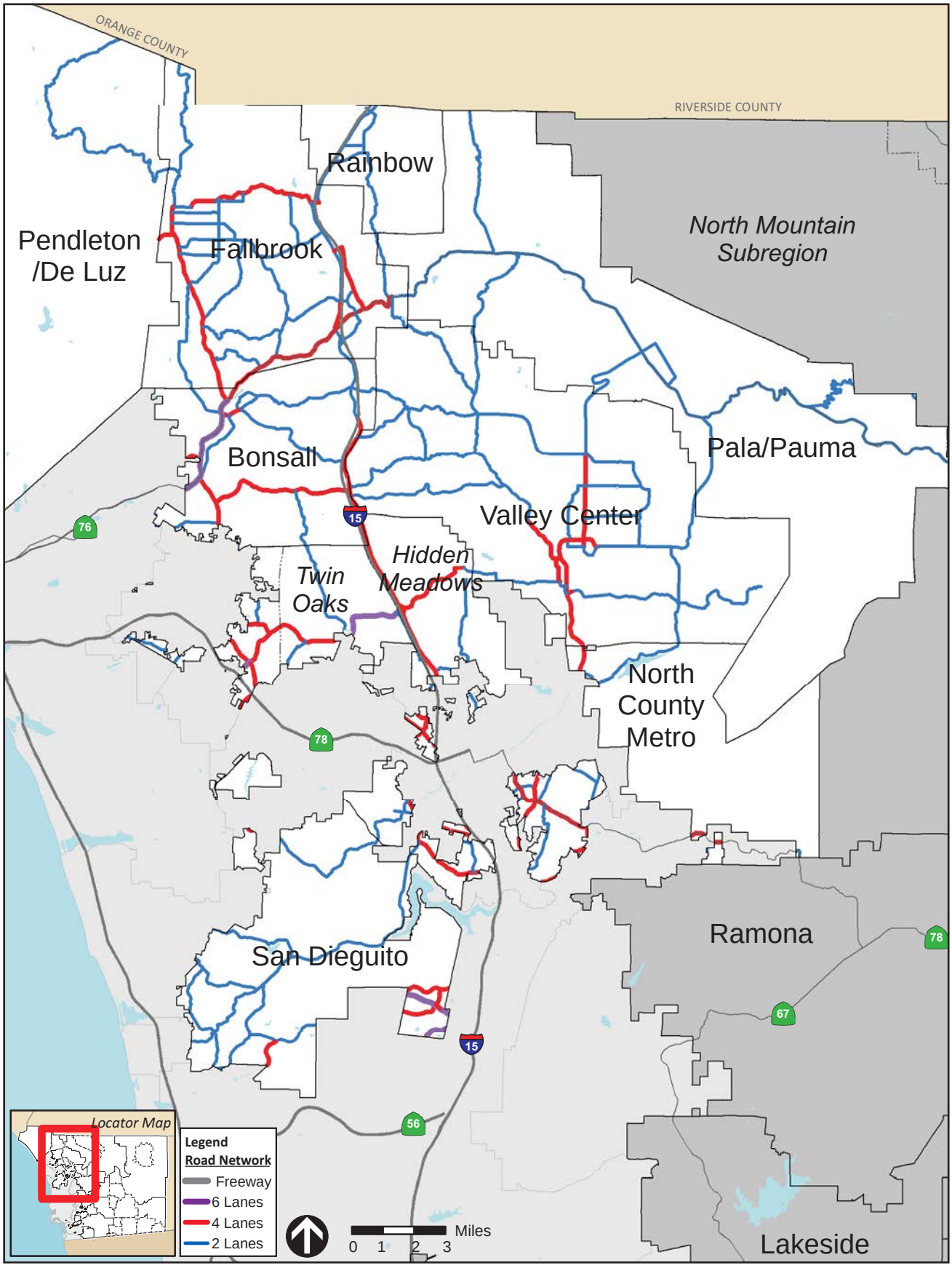
## FIGURE 1-2




Source: County of San Diego DPLU, 2008

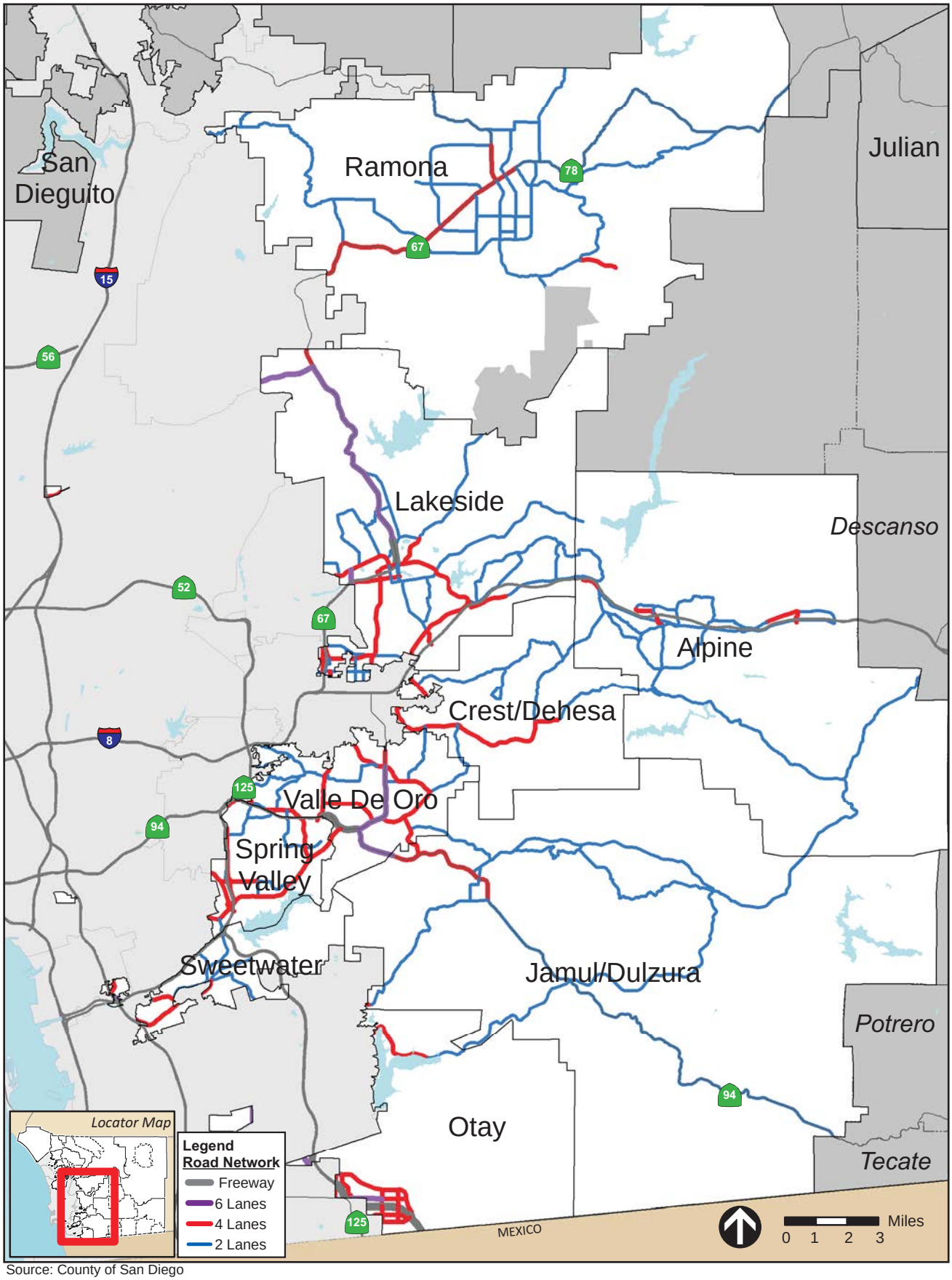
## PROPOSED LAND USE MAP

## FIGURE 1-3



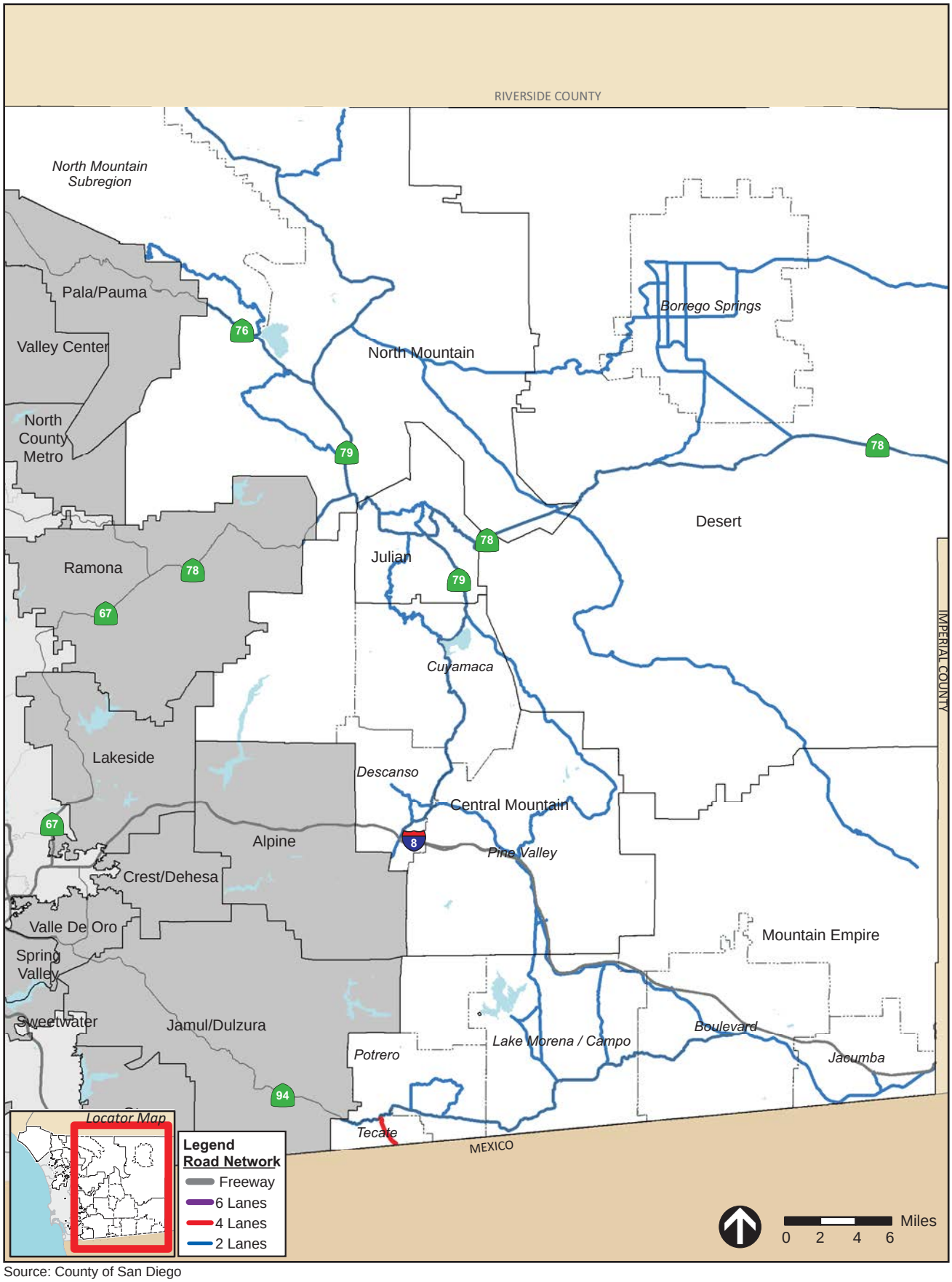

Source: County of San Diego

**NORTH COUNTY PROPOSED MOBILITY ELEMENT ROADWAYS** **FIGURE 1-4**




Source: County of San Diego

**EAST COUNTY PROPOSED MOBILITY ELEMENT ROADWAYS** **FIGURE 1-5**




Source: County of San Diego

**BACKCOUNTRY PROPOSED MOBILITY ELEMENT ROADWAYS** **FIGURE 1-6**

# CHAPTER 2.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

The following chapter provides information relative to seventeen environmental topics as they pertain to each component of the proposed San Diego County General Plan Update project. Each topical section describes existing conditions; regulatory framework; analysis of project effects and determination of significance; cumulative impacts, significance of impact prior to mitigation; mitigation; and conclusion. The County, as the lead agency, would require that the mitigation measures identified in this EIR be implemented, except in the following cases:

- Alternative mitigation is identified that reduces the significant impact to a similar level as would be achieved by the mitigation identified in the EIR; or,

- Substantial evidence is presented that the required mitigation measure is infeasible and that there is no feasible mitigation measure or alternative. In this case, the County, as the lead agency, must balance the benefits of the proposed project against the unavoidable significant environmental impacts to determine whether the unmitigated significant impacts are acceptable in view of specific overriding economic, social or other considerations (CEQA Guidelines Section 15093).

The seventeen topics addressed in Chapter 2.0 are the following:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Global Climate Change

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# 2.1 Aesthetics

This section of the EIR describes the visual setting of San Diego County and evaluates the potential for changes in the visual character with implementation of the General Plan Update. The following discussion provides information on the character of the existing visual landscape, including the visual character of the unincorporated area and each CPA, scenic vistas and visual resources such as natural landforms, scenic highways, dark skies, and community character. This section also describes the potential for land uses and development occurring under the General Plan Update to impact scenic vistas, scenic resources, visual character and light and glare. This section incorporates information and analyses from the Conservation and Open Space Background Report (DPLU 2007b), Guidelines for Determining Significance, Visual Resources (DPLU 2007r), and Guidelines for Determining Significance, Dark Skies and Glare (DPLU 2009b).

A summary of the aesthetics impacts identified in Section 2.1.3 is provided below.

**Aesthetics Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Scenic Vistas | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Scenic Resources | Potentially Significant | Potentially Significant | Less Than Significant |
| 3 | Visual Character or Quality | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 4 | Light or Glare | Potentially Significant | Potentially Significant | Significant and Unavoidable |

## 2.1.1 Existing Conditions

San Diego County is a visually diverse region with a dramatic coastline, mountains, and desert. The County's sunny weather allows people to spend much of their time outside throughout the year. For this reason, people come from all over the world to partake in the County's resources. The County is rich in natural open space, topographic resources, scenic highways, scenic vistas, and other diverse aesthetic resources. These natural features contribute greatly to the overall quality of the existing visual setting.

### *2.1.1.1 Visual Character*

San Diego County has three distinctive geographic regions that provide a backdrop for visual resources: the low-lying Coastal Plain, the mountainous Peninsular Range, and the lowlands of the Desert. These regions are described in detail in Section 2.6.1.1, General Geologic Setting. The diversity of these regions provides San Diego County residents and visitors with an array of natural vistas and scenic environments that provide a unique aesthetic collection from the ocean to the desert. Urban land uses are focused in the western third of the County, while the eastern two-thirds are largely undeveloped with mountains and desert dominating the landscape.

Throughout these three distinctive geographic provinces are vast amounts of publicly owned lands that provide open space and visual relief from the human-made environment. Examples include the U.S. Marine Corps (USMC) Base Camp Pendleton on the Coastal Plain in northern San Diego County; the Cleveland National Forest in the Peninsular Range; and Anza-Borrego Desert State Park in the Desert region. In addition to these examples of large expanses of open space, County parks, habitat preserves, reservoirs, farmland and undeveloped lands contribute to San Diego County's open space lands and overall aesthetic resource value.

Primary aesthetic resources in the Coastal Plain region include coastlines, bays, lagoons, canyons, mesas, natural vegetation, historic or unique structures, and agricultural lands. Notable scenic resources in the Peninsular Range foothills include the Otay River, Sweetwater River, upper San Diego River, Upper and Lower Otay Lakes, Sweetwater Reservoir, Lake Hodges, and San Vicente Reservoir. Scenic resources in the higher elevation of the Peninsular Range region are plentiful, including large open spaces such as Cleveland National Forest, Agua Tibia Wilderness Area, San Mateo Canyon Wilderness, Palomar Mountain State Park, Cuyamaca Rancho State Park, and various County reserves and parks, as well as the large water bodies of El Capitan Reservoir, Barrett Lake, Lake Morena, Lake Cuyamaca, and Lake Henshaw. Most of the Desert region is located within the Anza-Borrego Desert State Park, a valuable visual resource providing scenic beauty for many visitors. The Desert region also provides expansive views characterized by dramatic landforms, native desert habitat, and low desert valleys.

### *2.1.1.2 Scenic Vistas and Visual Resources*

**Resource Conservation Areas**

Certain areas in the County have been designated as Resource Conservation Areas (RCAs) for the purposes of informing future planning decisions. RCAs include, but are not limited to, areas of aesthetic quality, groundwater problem areas, coastal wetlands, native wildlife habitats, construction quality sand areas, littoral sand areas, astronomical dark skies areas, scenic geologic formations, and significant archaeological and historical sites. The following RCAs in unincorporated San Diego County are considered valuable because of visual resources. A summary of RCAs by CPAs and Subregional Planning Areas (Subregions) is provided below.

**Alpine CPA**

- **El Capital Reservoir and El Cajon Mountain.** El Cajon Mountain is valuable as a visual landmark and for wildlife habitat.

- **Viejas Mountain.** Viejas Mountain is a visual landmark and is valuable for its excellent example of undisturbed broad leaf and narrow leaf chaparral.

- **Sweetwater River Canyon and Adjacent Archaeological Resource Areas.** This canyon is valuable for its undisturbed habitats, including chaparral, virgin riparian woodland and oak woodland as well as a pristine perennial stream and aquatic ecosystems. It also offers a dramatic view that can be partially viewed at an Interstate 8 (I-8) roadside viewpoint.

- **Loveland Reservoir and Surrounding Visual Resources.** Loveland Reservoir serves as a rest stop for migratory waterfowl and its surrounding environs contain habitat used by the protected Golden eagle and other raptorial birds, as well as large mammals.

- **Horsethief Creek/Pine Valley Creek Region.** Portions of this isolated area are suitable habitat for several species of rare plants. It is also valued for its high visual resource and archaeological potential.

- **Gaskill Peak Region.** Habitats on this mountain are inhabited by large mammals and raptorial birds as well as plants. It is also valued as a visual resource.

- **Bells Mountain.** This is valued as a visual landmark and its high archaeological resource potential.

**Bonsall CPA**

- **Gopher Canyon.** This area is valued for its scenic oak woodlands.

- **San Marcos Mountains.** These mountains are a visual landmark.

**Central Mountain Subregion**

- **Boulder Creek Basin.** The area contains steep slopes and sensitive habitats including coastal sage scrub and riparian woodland. Significant geologic features include Mildred Falls, Devil's Jump-Off and Devil's Punchbowl.

- **Descanso Valley.** The Descanso Valley is the centerpiece of the community of Descanso and an important viewshed because of its farmland, cattle and horse pastures, and scattered rural structures such as barns, which give the valley a rustic character. The valley is also the confluence of three waterways: Sweetwater River, Descanso Creek, and Samagatuma Creek.

- **Guatay Mountain.** This area, with its steep slopes rising to a pinnacle, is a visual landmark to the communities of Guatay and Descanso.

- **Lake Cuyamaca and Meadows.** This area is one of the most important biological resources areas in San Diego County, with 15 sensitive plant species. Lake Cuyamaca and its surrounding meadows are also an important viewshed.

- **Crouch Valley.** This large meadow area is an important visual resource, as it serves as a gateway to the Laguna Mountain Recreation Area, and is easily visible from the Sunrise Highway, which is designated a U.S. Forest Service Scenic Highway under the National Scenic Byway (NSB) Program, as described below.

- **Buckman Springs Meadow.** This area is an important visual resource for travelers on I-8 because of the agricultural uses in the meadow that also provides habitat for raptors, reptiles, deer, birds, and other animals.

- **Pine Valley.** This area is characterized by residences hidden amongst the trees and a vast central montane meadow that provides open space. This area provides clear views

of the mountains beyond the numerous trees and the location of residences gives Pine Valley the appearance of being much smaller than it actually is.

**Crest/Dehesa/Harbison Canyon/Granite Hills Subregion**

- **McGinty/Dehesa/Sequan.** These three peaks are all prominent visual features for the El Cajon, Harbison Canyon, and Crest/Dehesa regions.

- **Harbison Canyon.** The gorge area at the southern end of Galloway Valley is a highly visible landmark and contains populations of the threatened Lakeside wild lilac.

- **North Fork of the Sweetwater River.** This area has high aesthetic and wildlife value, and contains sensitive oak woodland habitat and streamside riparian vegetation.

**Fallbrook CPA**

- **Landcaster Mountain.** This area is valued as a visual resource and also includes areas of oak woodland, mixed chaparral habitat, and steep rocky slopes.

**Jamul/Dulzura Subregion**

- **Lawson Peak.** Lawson Peak is an important scenic resource as well as a biologically important area because of the presence Gander's butterweed, and the rare Campo clarkia and creeping sage.

- **Mother Grundy.** The rock formation namesake for this mountain is a prominent visual landscape feature for the Dulzura area.

- **Tecate Peak/Cottonwood Creek.** The prominence of Tecate Peak in the skyline approaching the U.S./Mexico international border has made it an international landmark.

- **San Miguel/Jamul Mountains.** San Miguel Mountain is a scenic landmark that has appeared in many photographs of San Diego's skyline.

**Lakeside CPA**

- **El Cajon Mountain/El Capitan Reservoir.** This large area contains very steep slopes and isolated rocky peaks and ridges, including some of the largest granitic domes in San Diego County. The rocky peaks, especially on El Cajon Mountain, serve as a scenic backdrop for the El Cajon and Lakeside regions.

**North County Metro Subregion**

- **Jesmond Dene Oaks.** The scenic value of the oaks contributes to the character of the semi-rural residential community of Jesmond Dene.

- **Valley Center Ridge.** This steep, high ridge contains a diversity of oak woodlands and large growth chaparral that provides a scenic backdrop for the Subregion.

- **Burnt Mountain.** This area serves as wildlife habitat and is a visual landmark for residents of the Subregion as well as the Valley Center CPA.

- **San Marcos Mountains:** These mountains are an important visual landmark for residents of the Subregion and the Bonsall CPA and are especially significant because they contain rare and endangered plant species such as Cleveland sage and southern mountain misery.

**North Mountain Subregion**

- **Mesa Grande.** This area is a scenic resource and contains diverse vegetation and wildlife. The area also contains gem-bearing pegmatites that produce tourmaline and topaz. Gem-quality tourmaline is very rare and San Diego County is a world famous producer of this gem.

- **Palomar Mountain/Aqua Tibia Wilderness.** This represents one of the most scenic areas in San Diego County. Palomar Mountain is also valued because it contains scenic montane coniferous forest and the related species that this habitat supports.

- **Volcan Mountain.** This mountain is an important visual landmark because it can be seen from almost any vantage point in the Subregion. It contains biological sensitive oak woodland and chaparral species that grow on its steep slopes. On clear days, views from the mountaintop offer broad vistas of both the desert and ocean.

**Otay Subregion**

- **Otay Mountain/Lower Otay Lake.** Otay Mountain is a scenic landmark for the region because of rare and endangered plants that occur in the area. Otay Mountain contains the world's largest population of the rare Tecate cypress tree and numerous other rare and endangered plants. Portions of Otay Mountain are under consideration for wilderness designation by the BLM.

**Pala/Pauma Valley Subregion**

- **San Luis Rey River.** The river environs contain valuable biological resources including wetland habitat, plant and animal species, and extensive areas of oak woodlands. The biological resources and a rocky gorge along the river contribute to the scenic quality of the area.

**Rainbow CPA**

- **Mount Olympus.** This mountain is a prominent physical feature of the area and includes steep slopes with mixed chaparral, riparian wetland vegetation, wildlife habitat and populations of a rare and endangered plant, Peninsular manzanita.

- **Rainbow Oak Woodland Areas.** This area is known for its scenic quality and provides habitat for a variety of animal species.

**Ramona CPA**

- **Goose Valley Ridge.** This area provides an important visual mountain backdrop for the Santa Maria Valley and provides habitat for large mammals.

- **State Route (SR) 78 Corridor.** The slopes visible from the SR-78 delineate a scenic corridor and provide habitat along Hatfield Creek for riparian and oak woodland animals.

- **Mussey Grade Road.** The area along this road through a rural area of Ramona is valued for its scenic and biological resources, including oak woodlands.

- **Mount Woodson.** Mount Woodson, with a peak at approximately 2,800 feet Above Mean Sea Level (AMSL), and its surrounding slopes provide a notable visual landmark from Ramona and the nearby incorporated City of Poway.

**San Dieguito CPA**

- **Batiquitos Lagoon Region.** The area is valued for its scenic sandstone bluff formations, which is characterized by caves created by weathering (Batiquitos 2008).

- **Oak Crest Park Site.** This site is characterized by eroded sandstone bluffs and chaparral habitat.

- **San Elijo Lagoon/San Dieguito Park Area.** San Elijo Lagoon is one of the few remaining coastal wetlands in San Diego County and provides habitat for numerous plant and animal species. Sandstone bluffs also form a significant feature in this area.

**Sweetwater CPA**

- **Eucalyptus Groves 1, 2, and 3.** The eucalyptus groves provide habitat for avian species as well as an aesthetic buffer from surrounding development.

- **Mother Miguel Mountain.** The steep rugged terrain of this area contributes to the scenic viewshed in the eastern Sweetwater Area and contains a large undisturbed area of coastal sage scrub, as well as some chamise chaparral and grasslands. These vegetation types provide excellent habitat for the Golden eagle, a sensitive bird species known to occur here.

**Valley Center CPA**

- **Valley Center Ridge.** This scenic, steep, high ridge contains a diversity of oak woodlands and large growth chaparral that provides habitat for wildlife.

- **Chaparral Ridge.** This area includes a large, scenic rock slab north of Woods Valley Road.

- **Keys Creek.** This is a long, narrow riparian and oak woodland-lined stream bottom that provides high quality wildlife habitat and is a scenic community resource.

## Natural Landforms

Natural landform features that are located throughout the County include important geologic and scenic landform features, hillsides and ridgelines, canyons, creeks, prominent trees, and watershed areas.

### Watersheds

Rivers, lakes, reservoirs and fresh water bodies are visually attractive and provide opportunities for recreation. The rivers and streams flowing from the mountains to the desert and the coastal area are important natural features that link the diverse eco-regions of the County. These features are shown in Figure 2.8-2, Surface Water, and a detailed discussion of the watersheds within the County is provided in Section 2.8, Hydrology and Water Quality.

## Open Space

Open space includes, but is not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, rivers and streams; and areas that serve as links between major recreation and open space reserves, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

### Multiple Species Conservation Program (MSCP) Lands

The MSCP is a long-term conservation planning program designed to facilitate the establishment of a connected preserve system that ensures the long-term survival of sensitive plant and animal species and protects the native vegetation found throughout San Diego County. The MSCP addresses the potential impacts of urban growth, natural habitat loss, and species endangerment and creates plans to mitigate for the potential loss of sensitive species and their habitats. The regional San Diego County MSCP Plan was finalized in March of 1998 and covers 582,243 acres over 12 jurisdictions. Individual jurisdictions have the responsibility of preparing Subarea Plans to implement the MSCP within their boundaries. The South County Subarea Plan was adopted by the BOS on October 22, 1997. This South County Subarea Plan covers 252,132 acres in the southwestern portion of the unincorporated area. The County is currently developing new MSCP Plans for the North County and East County. Upon the adoption of these two additional plans, the entire unincorporated County would be included in a MSCP long-term conservation plan, as shown in Figure 2.1-1. However, each MSCP plan is completely independent of the others. Each covers separate territory and includes its own conservation analysis and documentation, including an EIR.

### Parks, Open Space Preserves and Reserves

There are a number of regional parks that contain important historical or cultural sites and often museums and/or interpretive centers. The County also has a system of 18 open space preserves and reserves that are distributed primarily in the western and central areas of the County. Figure 2.14-1, Existing Parks, in Section 2.14, Recreation, shows the major parks in San Diego County.

**Regional Trails**

Regional Trails cover long linear distances, transcend community and/or municipal borders, have State or national significance, and provide important connections to existing parks, open space preserves, and other visual resources. The regional trails system is shown in Figure 2.14-2, Regional Trails Map, in Section 2.14, Recreation.

**Privately Owned Open Space Lands**

The range of privately owned open space lands includes uses such as private parks, private nature preserves, private land banks, golf courses, club playing fields, and landscaped outdoor areas. Private open space also includes floodplains, steep slope areas, seismic hazard zones, and sensitive habitats over which the County has land use authority. Many of the lands are owned and managed by non-profit conservation groups. These lands are shown in Figure 2.14-1, Existing Parks, in Section 2.14, Recreation.

### *2.1.1.3 Scenic Highways and Corridors*

**Scenic Corridors**

A freeway, highway, road, or other vehicular right-of-way along a corridor with considerable natural landscape and a high aesthetic value would have the potential to be eligible for a scenic highway designation. Scenic highway corridors generally include the land adjacent to and visible from the vehicular right-of-way. The dimension of the corridor is usually identified using a motorist's line of vision, but a reasonable boundary is selected when the view extends to the distant horizon. Scenic highways are important because land use controls can be applied at a scale that allows the County to preserve the visual integrity of the natural landscape.

Even though the County has an abundance of natural and human-made beauty, only limited segments of these visual resources are viewed regularly. Scenic corridors along the County's roadways, particularly scenic highways, offer an easy means of viewing these resources. Scenic highways can be used to identify and preserve important viewsheds along roadways. The County has prepared Scenic Preservation Guidelines for the Interstate 15 (I-15) Corridor and a Conservation and Open Space Element of the General Plan Update that aim to maintain existing scenic highways and corridors.

**National Scenic Byway (NSB) Program**

The NSB Program was established under the Federal Highway Administration with the adoption of the Intermodal Surface Transportation Efficiency Act 1991, with the vision "to create a distinctive collection of American roads, their stories and treasured places." Sunrise Highway, located in Central Mountain, is designated a U.S. Forest Service Scenic Highway under the NSB Program and is the only NSB in the County. The basis for the NSB Program is to provide resources for the preservation of scenic corridors. The program does not place new restrictions on these highways, and is a voluntary program for citizens to participate in.

**State Scenic Highways**

State Scenic Highways are those highways that are either officially designated as State Scenic Highways by the Caltrans or are eligible for such designation. Eligible scenic highways are identified in Section 263 of the Streets and Highways Code. The status of a State Scenic Highway changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway designation, and receives notification from Caltrans that the highway has been designated as an official State Scenic Highway. Only two highways in the unincorporated County have been designated as a State Scenic Highway: SR-78 through the Anza-Borrego Desert State Park and SR-125 between I-8 and SR-94. Eligible scenic highways include portions of I-5, I-15, SR-94, I-8, SR-79, SR-78, and SR-76 within the unincorporated County. Officially designated California Scenic Highway routes receive street signs displaying a poppy logo. Both designated State Scenic Highways and select eligible scenic highways are shown on Figure 2.1-2. Highways eligible for a State Scenic Highway designation in the unincorporated County are shown in Table 2.1-1.

**County Scenic Highway System**

The County Scenic Highway System was originally intended to serve as a master plan for official State Scenic Highway designations. The County's Scenic Highway System Priority List serves as the basis for initiating specific corridor studies. Criteria for establishing the County Scenic Highway System Priority List includes:

1. Routes traversing and providing access to major recreation, scenic or historic resources;
2. Routes traversing lands under the jurisdiction of public agencies;
3. Routes supported by significant local community interest; and
4. Routes offering unique opportunities for the protection and enhancement of scenic recreational and historical resources.

Projects meeting three or more of the above criteria are classified as first priority projects and are the highest priority for corridor studies. Routes meeting only two of the above criteria are classified as second priority projects. All other projects are classified as third priority. Only a handful of corridor studies have been initiated due to lack of funding and no routes have been officially designated as a County Scenic Highway. Currently, the list serves more as a source for identifying resources than as a way to implement the scenic highways program. Table 2.1-2 provides the County Scenic Highway System Priority List.

### *2.1.1.4 Dark Skies*

Dark skies are a natural resource in San Diego County and are essential to the study of the celestial bodies. Astronomical research has contributed to a greater understanding of our solar system, supported advances in space travel, improved telecommunication systems, defense and surveillance systems, advanced weather forecasting and atmospheric physics, and provided insight to energy production. The maintenance of dark skies in San Diego County is vital to the two world-class observatories that depend on them for astronomical research: Palomar and Mount Laguna Observatories. Only a few high-quality astronomical research sites exist in the U.S. As two of the best, Palomar and Mount Laguna Observatories currently meet

all of the criteria to be classified as premier astronomical sites. The five criteria for a high-quality site include:

1. **Elevation Over 5,000 Feet AMSL.** A moderately high elevation is necessary to reduce the scattering of light by dust in the lower atmosphere and to place observatories above the marine layer. Very high mountains are of diminished value because of increased cloudiness and snowfall, and frequently very high winds.

2. **Clear, Cloud-free Night Sky.** Mount Palomar and Mount Laguna are the nation's best continental mountain sites in this respect with an average of 6.4 cloud-free hours per night.

3. **Proximity to the Pacific Ocean.** The prevailing on-shore winds at the moderate altitudes of the local observatories provide dust-free and smooth laminar air flow over the observatory mountain tops, which results in stable celestial images. In contrast, the Atlantic Ocean has primarily warm air currents, which when combined with cool air can cause atmospheric turbulence that produces inferior and blurred images. Desert sites, while dark, generally suffer from convective turbulence produced by the daily heating and nighttime cooling cycle, and also from increased dust contamination.

4. **Distance From Urban Areas.** The site must be far enough from large lighted areas, generally 30 to 40 miles, so that the sky over the observatory will not be brightened appreciably. In relative terms, the 200-inch mirror at the Palomar Observatory is strong enough to detect the striking of a match at a point as far away as San Francisco.

5. **Freedom From Nearby Sources of Light, Dust and Smoke.** A light source at a one mile distance has 1,600 times the impact on an observatory as an equivalent light at 40 miles distance. Smoke and dust, even in extremely small amounts, are also highly detrimental to observatories because they increase the scattering of stray light down into the telescope from above.

Sites in the continental U.S. that meet the majority of these criteria are found only in West Texas, Central New Mexico, Arizona, the Central California coast, and San Diego County.

**Palomar Observatory**

Palomar Observatory, located at the top of Palomar Mountain (5,500 feet elevation) in northern San Diego County, is privately owned and operated by the California Institute of Technology (Caltech) and is used to support some of the U.S. and California's premier scientific research programs. Caltech shares use of their Hale Telescope at the Palomar Observatory with astronomers from Cornell University and the National Aeronautics and Space Administration's (NASA) Jet Propulsion Laboratory. The principal instruments at Palomar Observatory include the:

- 200-inch Hale Telescope;
- 48-inch Samuel Oschin Telescope;
- 60-inch reflecting telescope; and
- Palomar Testbed Interferometer, operated by the Jet Propulsion Laboratory.

Scientific research at the Palomar Observatory has been remarkably successful and productive since the site was selected for an observatory in 1934. One of the reasons Palomar Mountain was selected as the site was because its dark skies allow observation of the faintest galaxies without the interference of city lights. The Hale and the other telescopes at the observatory have been used on virtually every clear night to provide astronomers with the information they need to continue to advance the science of astronomy. The scope of research ranges from studies of near-earth asteroids and distant worlds within our solar system to the stars that comprise the Milky Way, and the uncharted and unknown galaxies beyond our own. The Observatory and associated museum and gift shop are open to the public daily.

**Mount Laguna Observatory**

San Diego State University (SDSU) and the University of Illinois jointly operate the Mount Laguna Observatory. It is located at an altitude of 6,100 feet on the eastern edge of the Cleveland National Forest near the Anza-Borrego Desert State Park, approximately 45 miles east of downtown San Diego. Mount Laguna Observatory is one of the best astronomical research sites and educational facilities in the nation. The Observatory was dedicated on June 19, 1968; only seven years after Astronomy became a new department on the SDSU campus. Visiting researchers and students also use the SDSU facilities at Mount Laguna. Sky conditions at Mount Laguna enable the astronomers to conduct their observations almost year-round. The Observatory maintains the Buller 21-inch telescope for public outreach and operates a free Summer Visitors Program jointly with the U.S. Forest Service during which the public is given an astronomical lecture and then given the opportunity to look through the Buller telescope.

**Lighting Footprint**

For those reasons stated above, the County is committed to ensuring that the two valuable research observatories continue to operate and function for future generations. The observatories are such an important fixture of San Diego County that the County Seal includes an observatory atop a mountain. Conscious efforts must be made to protect the Palomar and Mount Laguna observatories from the effects of light pollution that have a detrimental effect on astronomical research by restricting the permitted use of outdoor light fixtures on private property. Dark skies are also an important component to the rural character of several County communities, as described below in Section 2.1.1.5.

Nighttime light is produced primarily by upward pointing or upward reflected light from outdoor lighting. This type of lighting illuminates the nighttime sky from below, just as the sun does from above in the daytime, and can be detrimental to astronomical observations by impacting dark skies. Nighttime light that spills outside its intended area can be annoying to neighbors and potentially harmful to motorists, cyclists, and pedestrians. Further, the health of natural wildlife can also be adversely affected from nighttime lighting. Nighttime lighting in excess of what is necessary for its purpose is called light pollution.

Some land uses tend to have a greater impact on night lighting than others. Commercial land uses tend to have lighted parking lots and signs at night, and use more lighting for nighttime security. Therefore, areas of higher commercial use generally have a greater lighting footprint than most residential areas. Additionally, CPAs with greater development overall generally have a greater lighting footprint than less developed CPAs. The most developed CPAs, which generally have the greatest lighting footprint, are Spring Valley, Valle de Oro, Lakeside, San Dieguito, and North County Metro. Mostly rural residential and/or agricultural CPAs, or those

that contain large areas of open space, such as Bonsall, Central Mountain, and the Desert Subregion, generally have a smaller lighting footprint. CPAs such as Alpine, Ramona, and Fallbrook that have an established commercial village center have a greater lighting footprint in the village center and a lesser lighting footprint in the surrounding rural uses.

### *2.1.1.5 Community Character*

**Human-made Scenic Environment**

Community design reflects the quality of experiences associated with the community. The range of experiences is defined largely by the visual impression created by the community and its setting. A key factor contributing to community design is the relationship between the built environment and the natural setting.

Aesthetic value is not limited to open space and rural lands, but can also be held in historic structures and districts, architectural design, streetscapes, and manufactured landscapes. These valuable aesthetic elements of the human-made environment can be found throughout the County. A well-known example is the historic gold-mining community of Julian.

**Community Character**

Community character can be described as the "personality" of the community and is defined by land uses, historical resources, community design, architectural themes, natural resources, and any other man-made or natural features that give the community its overall look and feel. The unincorporated area of San Diego is unique because varying features such as topography, land uses, and natural features allow for a variety in community character throughout the County. The rural uses in many unincorporated communities provide dark skies that are an important nighttime visual resource, as described above, and are an important component of the rural character. Distinct features such as terrain and topography, land uses such as agriculture, the presence of a distinct town center, rural development densities, and designated open space or other natural features are examples of factors that contribute to the character of a community. San Diego County contains 23 CPAs and Subregions, each of which has a distinct community character. The following section describes the character of each community in the unincorporated County.

**Alpine CPA**

Alpine is a rural community with a well-developed town center area and predominantly residential development. Land use and lot sizes have considerable influence on the rural characteristics of the community, as well as the visual aspects of the community. The town center acts as the central hub of industrial development and higher density residential development. Design guidelines ensure that development within this area maintains a rustic village character. More rural estate residences with two-acre minimum lots are separated from the town center by a buffer of one-acre minimum residential lots. A portion of Alpine is located outside of the SDCWA boundary. Outside of the SDCWA service area, residential lots are larger, with a minimum of four acres per lot, which contribute to the rural quality of the area. The visual quality of the landscape is extremely important as well as the protection of scenic ridgelines from excessive grading. The sparse ridgeline development in the Alpine area can be seen in Photo Location 1 in Figure 2.1-3. The preservation of natural oak groves and the

maintenance and extension of street tree plantings are of special concern to the community. The dark night sky is also considered an important visual characteristic of the Alpine CPA.

**Bonsall CPA**

Bonsall is a rural community consisting of wide, open panoramic views of agriculture, estate lots, scenic valleys, canyons, ridgelines, and steep boulder-strewn slopes with sweeping views to distant hills, as shown Photo Location 2 in Figure 2.1-3. The Bonsall area consists primarily of low-density estate type residential and agricultural uses. Houses are generally located far apart on hillsides and hilltops, as well as in the valleys. Surrounding the residences are large open spaces composed of fallow fields, undisturbed native vegetation, and agriculture. Agriculture is a key factor in Bonsall's rural community character, as are the scenic, sometimes narrow and winding, rural roads and rolling hill and valley topography. The area offers a tranquil, private, rural life to its residents, through the large open spaces between houses, screening vegetation, beauty of natural landforms, natural resources and features, lack of noise and congestion, and the presence of agriculture and animal farming. The rural characteristic of the Bonsall CPA also provides a dark sky, which is an important characteristic due to the CPA's close proximity to the Palomar Mountain Observatory.

There are many scenic landforms of special concern to the community including Mount Ararat and the view of Sleeping Indian Hill. The Bonsall CPA has a well-developed river system that is centered around the San Luis Rey River, which includes both wetlands and floodplains. Views in this community are enhanced by the many avocado and citrus groves, flower nurseries, and horse ranches surrounded by white estate rail fences. The ridgelines, hilltops, and steep slopes prevalent in Bonsall are important natural resources, and are important factors in the visual beauty and rural character of the community.

**Central Mountain Subregion**

The Central Mountain Subregion is one of the most visually significant areas in southern California. Claiming six of the 10 highest peaks in San Diego County, the Subregion offers residents and visitors undisturbed views of mountains, meadows, chaparral covered hills, oak woodlands, and riparian canyons. The character varies throughout the many communities in the Subregion, but land uses generally consist of large lot, single-family residential developments, grazing, dry farming lands, and undeveloped open space. Identified visual resources in the Cuyamaca area of the Subregion include the predominance of natural features such as coniferous forests, meadows, peaks, and Cuyamaca Lake, with few residences visible from roads. Sunrise Highway, the only access road to the Laguna Mountain area, is a picturesque, winding, two-lane mountain road with a variety of scenery that includes nearby mountains covered with chaparral, meadows and conifers, and desert panoramas. The area of Buckman Springs is one of the most scenic areas in the Subregion because of its large meadows dotted with oaks and cattle. The Subregion also contains many areas that are not visible from a designated scenic highway, but that have been identified as having scenic value. These areas include Cleveland National Forest, Cuyamaca Rancho State Park, Cuyamaca Lake, and certain private lands that are visible from public lands and roadways. Dark skies are an important nighttime visual resource in this subregion due to its proximity to the Mount Laguna Observatory. The Central Mountain Subregion contains several communities with distinct character, including Cuyamaca, Descanso, and Pine Valley. These communities are described in greater detail below.

### *Cuyamaca*

Cuyamaca is a small, low-density residential community characterized by several land uses and natural resources. Cuyamaca Lake is a key recreational resource in the community, which also includes a substantial multi-purpose trail network. Land uses in Cuyamaca include limited commercial services serving visitors and the few residents that are nestled among Jeffrey and Coulter pine trees on North Peak. Portions of four very scenic roads traverse the community: SR 79, Sunrise Highway, Engineers Road and Boulder Creek Road. Additionally, the community includes vast acreages of public lands, two very large agricultural preserves, open meadows, and the Inaja Indian Reservation. The main visual characteristic of the area is the predominance of natural features such as coniferous forests, meadows, peaks, and Cuyamaca Lake, with few residences visible from public roads. Rural uses dominate this area. Approximately 95 percent of the region is composed of the Cuyamaca Rancho State Park and the Cleveland National Forest, which also provide important open space visual resources.

### *Descanso*

Descanso is a rural mountain community that values maintaining an agricultural/ranching lifestyle and access to open space. Descanso is bounded on all sides by Cuyamaca Rancho State Park and the Cleveland National Forest, and is located on the Viejas Boulevard loop to the west of SR 79. The town is nestled in a river valley, with open meadows, oak groves and pine trees. The valued resources of Descanso include oak, pine, manzanita and woodlands mixed with chaparral, grassland meadows, seasonal creeks below rocky peaks, and an abundance of wildlife. These resources are enjoyed by the riders and hikers using the many trails that are present in the area. The Descanso area is also rich in historical and archaeological sites. Many of the existing residences were built as summer cabins in the early part of this century, and help define Descanso's rural charm. Because Descanso has grown slowly, there is a strong sense of community and a low crime rate. The FCI and lack of water have limited development and preserved open space in the area. The FCI applied 40-acre minimum lots in certain areas in the Cleveland National Forest. For more information on the FCI, refer to Section 2.9.2.3, Local Regulations in Section 2.9, Land Use.

### *Pine Valley*

This area contains three small communities: Pine Valley, Guatay, and Mount Laguna. All are rural communities with low-density development. Commercial development is concentrated along Old Highway 80, and is small in scale, which reflects the area's rural character. Wildlife, forest lands, trails, and open spaces are valued visual resources.

The community of Pine Valley is in the southeast portion of the Central Mountain Subregion along both sides of Old Highway 80. The valley floor has an abundance of large oak and Jeffrey pine trees, manzanita and lilac, and is surrounded by the higher Laguna mountains. The community is bordered on four sides by the Cleveland National Forest, which prevents lateral expansion of any private interest. The area is favored by bicyclists and is a center for equestrian use and hiking into the surrounding mountains. An example of the rural development of Pine Valley surrounded by open space is shown in Photo Location 3 in Figure 2.1-4.

Guatay is located on Old Highway 80 at an elevation of 4,000 feet AMSL, rising above Descanso on the west and Pine Valley on the east. Guatay has an abundance of oak trees, manzanita, wild lilac and a grove of rare Tecate cypress. Guatay is surrounded by Cleveland

National Forest. This provides Guatay with an abundance of open space and wildlife habitat. Scattered commercial and civic uses are located throughout the town.

The Mount Laguna area is characterized by its moderate to cool summer mountain climate, natural pine-oak forests with various types of wildlife, a rural atmosphere with picnic areas and campgrounds, and panoramic desert views. The few residences and cabins in the area are generally constructed of logs, wooden planks, and stonework, which reflect the rustic charm of decades gone by.

**County Islands CPA**

The County Islands CPA is comprised of three small, non-contiguous, isolated areas interspersed within incorporated areas. These separate areas are known as Lincoln Acres, Greenwood, and Mira Mesa (not to be confused with the community of Mira Mesa in the City of San Diego). The Lincoln Acres area is characterized by single family residences and a cemetery. Greenwood is entirely encompassed by a cemetery. Mira Mesa is comprised predominantly of equestrian-oriented use.

**Crest/Dehesa/Harbison Canyon/Granite Hills Subregion**

The Crest/Dehesa/Harbison Canyon/Granite Hills Subregion contains four separate communities that exhibit, to varying degrees, a physical, social and cultural environment that provides relief from fast growing areas such as the City of El Cajon and the unincorporated community of Alpine. A dark night sky is an essential element of the rural character of each community in the Subregion.

***Crest***

Crest is a unique mountain-top community that overlooks the Dehesa Valley to the south, Lakeside to the north and El Cajon to the west. The historic town center of Crest contains single-family residences built at densities typical of suburban areas. There are many constraints to development within the town center. There are no sewers; consequently, lots must be large enough to accommodate adequate septic systems. Many of the residential streets in Crest are narrow and unpaved, which is consistent with the rural character of the area. Only certain small businesses are allowed in areas designated for limited agricultural use, which adds to the rural historic character of the community.

The topography of the area isolates Crest from urbanized areas to the north and west, while giving residents access to urban amenities via La Cresta Road. The steep slopes that surround the Crest town center are mostly exposed granite. The landscape within the town center is varied and includes introduced species, indigenous oak and coastal sage scrub, and thriving stands of eucalyptus trees that have existed since the early days of the settlement. Large groupings of granite rocks are another important element of the visual character of Crest. The historic town site of Crest contrasts with the area of estate development located to the north. In addition, many large, undeveloped and heavily constrained tracts of land are located to the south, east and west. Dehesa (Suncrest) Mountain to the south, Ironside Mountain to the northeast and El Capitan, in the distance to the north, are highly significant scenic resources in the Crest area.

### *Dehesa*

The Dehesa Valley is a picturesque, pastoral, agricultural area located along the upper reaches of the north fork of the Sweetwater River and along the lower portions of Harbison Canyon Creek. Today, Dehesa remains primarily an agricultural and residential community. While agriculture has almost disappeared from the Dehesa Valley, its distinctive rural character still remains. Mountains rising up on all sides of Dehesa keep development contained and separated from the neighboring communities of Alpine, Crest, Harbison Canyon, and Granite Hills. An example of the mountains in the Dehesa area is shown in Photo Location 4 of Figure 2.1-4.

Architecturally, the Dehesa area is a diverse mixture of farm houses and estate-sized residences with no specific style predominating. Horseback riding is an important pastime in Dehesa and trails exist throughout the area. Sloan Canyon is formed by the main channel of the Sweetwater River and it is located between Loveland Reservoir and where the river turns west to parallel Dehesa Road. The landscape is rugged and very scenic with steep slopes covered with oaks, chaparral and scenic rock outcroppings. With the exception of the portion of the channel that is currently being mined for construction quality sand, Sloan Canyon remains in its natural state.

### *Harbison Canyon*

Harbison Canyon is a small community located along an oak-lined mountain valley. First subdivided in the early 1900's, the intent was to provide a destination for those seeking some relief from the pressures of the urbanizing San Diego area. The original lots were very small and would not be able to accommodate today's full-sized single-family residence. Most of the initial development was comprised of small cottages or cabins used mostly for weekend retreats.

Development progressed slowly and in most cases the small lots were combined to provide building sites that would meet the County Department of Environmental Health requirements for septic systems. Over the years, the lack of large scale development in Harbison Canyon has given the community a pleasingly eclectic appearance and the need to customize building sites creates a positive sense of closeness. The need to carefully pick building sites has resulted in residential development that is adapted to the major physical elements of the community, which include vegetation and natural habitat, Harbison Canyon Creek, steep canyon walls with massive rock outcroppings, and ridgetops that provide an important aesthetic resource.

The roads in Harbison Canyon are tree-lined country lanes. Some are not paved and many simply appear to end up as private driveways. Even Harbison Canyon Road, despite increasing traffic, retains a winding alignment and tree-lined appearance.

### *Granite Hills*

Granite Hills is located in the western portion of the Subregion. It is split into north and south sections by a finger of land that is within the jurisdiction of the City of El Cajon, which penetrates in a west-to-east direction. Development within the County's jurisdiction generally blends in well with the development within the City. One main difference is that sewer service is available to the residents within the City, and consequently, lot sizes can be smaller. While smaller lots do exist, especially in the northern section of Granite Hills, the prevailing lots size is about one acre. Another typical difference between City of El Cajon and County development is that streets within the City have curbs, gutters and, sometimes, sidewalks, while the County areas

do not. The absence of these types of street improvements enhances the semi-rural ambience of Granite Hills.

While Granite Hills has been gradually changing from agriculture to residential uses, some small-scale agricultural operations remain. Horse ownership is common and there is a frequently used equestrian facility on Greenfield Drive. The topography is gently rolling in character and gradually increasing in elevation to the east where it rises abruptly along a ridge covered in chaparral and granite rock outcroppings. The predominant feature of the Granite Hills area is the semi-rural settlement pattern set against a background of chaparral covered granite ridges.

**Desert Subregion**

This subregion has a natural desert ambiance and rural town character. The environment of the Borrego Valley is the greatest natural resource in the Desert Subregion. The warm, mild winters make it a prime location for resort development. Clean air, clear skies and proximity to the Anza-Borrego Desert State Park are also factors that add to Borrego Valley's potential as a high-quality and profitable winter resort. Seasonal wildflower displays in the Desert are an important visual resource that provides a tourist attraction during the spring. Additionally, a great deal of scenic and recreational value is gained from the presence of the Anza-Borrego State Park within the Subregion.

Agriculture became an important activity in the Borrego Valley during the years following World War II. Various types of agricultural activity still remain in the northwest corner of Borrego Springs including the harvesting of citrus orchards, potato fields, and tree farms. Additionally, the dark night sky in the Desert Subregion is a natural resource enjoyed by residents and visitors to the desert. The dark sky is also essential to the effective operations of the nearby observatories.

Borrego Springs is a low-density rural and commercial community with a diverse but small-scale commercial area serving the Desert Subregion, low-density permanent and seasonal homes, hotels and tourist resorts. The community is tourist destination because of these resorts and its proximity to the Anza Borrego Desert State Park, which surrounds the community and also provides a visual resource to residents and visitors. Borrego Springs strives to maintain a pedestrian-friendly village and pedestrian-friendly roads. The Borrego Springs town center is composed of well-maintained, low rise commercial buildings, small shops and offices giving it an attractive and unique small desert town character. Christmas Circle marks the entrance into the village of Borrego Springs from the east and hosts many art shows and community events. The Borrego Springs town center caters to over one million Anza-Borrego Desert State Park visitors annually. The community also caters to a large retirement community that enjoys the five golf courses situated in densely landscaped resorts.

**Fallbrook CPA**

Fallbrook currently has a unique village atmosphere characterized by predominately low density residential development and agricultural uses. The community has a well-developed network of roads that consists of multiple linkages to allow for narrower roads. Fallbrook contains a vibrant and prosperous town center that is important to its community character and is the primary commercial and industrial area. Outside of the town center Fallbrook has a rural and agricultural character. Areas of rugged terrain, particularly in the northern part of the community

along the Santa Margarita River, are important natural resources, as well as the San Luis Rey River floodplain in the southern area. The CPA has maintained a dark night sky, which is important to the nearby Palomar Observatory.

**Jamul/Dulzura Subregion**

Important to the character of the Jamul/Dulzura Subregion are the historical aspects of the community and the preservation of environmental resources and rural character. There are several historical sites of significance within the Subregion, including the Barrett House, the Mataguay Historic District, the Barn at the Oaks, and Dulzura Cafe. These sites not only offer a unique glimpse into the past and contribute to the rural atmosphere, but also add to its sentimental appeal and strong roots.

The Jamul/Dulzura Subregion is composed of several small rural communities including Jamul, Steele Canyon, Dulzura, and Barrett Junction. Generally, the Subregion has remained rural in character due in part to the lack of a sewer system and availability of imported water service only in the northwestern portion of the Subregion. Commercial activities are comprised of the small shopping plaza located at Proctor Valley Road and SR-94 as well as the Barrett Café Fish Fry. Agriculture is still a major land use in the Subregion and much of the land is dedicated to this use. This rural development gives the Subregion a historical character. Dark skies in the area are considered an important aesthetic resource.

***Jamul***

Jamul is the largest community in the Subregion, and its surrounding hills and valleys accommodate a majority of the Subregion's population. Jamul is a rural town with small commercial centers located at two main intersections along SR-94. The town is the social focal point and primary recreational center for the community. It contains historical structures, including the Jamul School House and the Barrett House, built in 1890, which give it a scenic character. The riparian and oak woodlands along SR-94 are another important visual resource for the community.

***Steele Canyon***

Steele Canyon is a small, semi-rural community along SR-94. The community is located in a meadow on the Proctor Valley floor that contains woodland and streams. The valley is an important visual resource to the community and is especially vital to the scenic character of the Steele Canyon Golf Course. This is an important asset to the community because it is one of three San Diego County golf courses to be awarded Golf Digest's Four Star Rating (Steele 2008).

***Dulzura***

Dulzura is also a rural community, but it is valued as a recreational resource because of its outstanding scenic value in terms of view, natural vegetation, watercourses, and scenic geological formations, such as the Mother Grundy rock formation. Dulzura Creek and the historic Dulzura Café, built in 1900, are also important contributors to the visual character of the community.

***Barrett Junction***

Barrett Junction is located along a portion of SR-94 that offers scenic views of the surrounding mountain landscape. The historic Barrett Junction Café and Mercantile is an important

contributor to the community's rural and historic character that attracts SR-94 travelers (Barrett 2008).

**Julian CPA**

Julian continues to remind visitors of its colorful gold-rush past by preserving the architectural authenticity of the area's early years of settlement. Today, this area is known as the Julian Historical District and is shown in Photo Location 5 is Figure 2.1-5. The area continues to maintain a rural lifestyle outside the Historic District. Large ranches dedicate expanses of land to grazing and smaller ranches often support orchards or wineries.

Scenic resources in the surrounding areas also add to the community character of Julian. Volcan Mountain's great size (20 square miles) dominates the Julian area and is considered an important visual resource. In addition, the area from the junction of SR-78 and SR-79 through the historic town site to Santa Ysabel offers a scenic drive that alternates between enclosed wooded areas and wide open meadows.

**Lakeside CPA**

Lakeside is a large, distinct residential community that maintains a rural atmosphere and is made up a several individually distinct residential neighborhoods, including Bostonia, Glenview, Johnstown, Lakeview, Wintergardens, Rockcrest, Eucalyptus Hills, Moreno Valley, and Blossom Valley. These neighborhoods are primarily single-family residential developments; however, Bostonia also includes multi-family residences. Eucalyptus Hill, Moreno Valley, and Blossom Valley also include agricultural uses. Many residential areas of Lakeside are bordered by undeveloped areas, such as the Eucalyptus Hills neighborhood. Distinct business/industry and agricultural neighborhoods are also found in the CPA, such as the Slaughterhouse Canyon industrial area. The majority of commercial and industrial uses in Lakeside are located in the town center, which has a historic rural character. Lindo Lake, shown in Photo Location 6 in Figure 2.1-5, is a visual resource important to the character of Lakeside. Located in Lakeside's town center, the Lindo Lake County Park provides a library, community building, and outdoor passive recreation areas. Another prominent visual resource in Lakeside is the San Diego River, which runs east to west through the center of the CPA.

**Mountain Empire Subregion**

The Mountain Empire Subregion contains six communities/areas that have their own unique identities but are similar in many natural characteristics such as topography, water resources, and environment. These areas are Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba and the remainder of the plan area. The dark night sky is an important resource for each community in the Subregion.

***Tecate***

Because the Tecate area contains a U.S./Mexico international border crossing, it has certain land uses that are unique, such as commercial and industrial uses at higher densities than other nearby communities. This is due to its proximity to Tecate, Mexico, which is a heavy industrial and commercial area that has given rise to intensive non-residential uses in Tecate, California, as shown in Photo Location 7 in Figure 2.1-6. The prominent Tecate Peak provides a visual resource to the community.

### *Potrero*

The Potrero area has unique natural characteristics including a gently sloping valley floor bisected by Potrero Creek and surrounding mountains that offer views of the Potrero Valley. Potrero is also located in close proximity to the U.S./Mexico international border and the growing City of Tecate, Mexico. This community is rural and contains historic structures that give it a country character. The town center and its commercial uses are located along SR-94 and attract traveling visitors.

### *Campo/Lake Morena*

The Campo area consists of three clusters of development that have historically been rural in character: Campo, Lake Morena and Cameron Corners. Campo and Lake Morena have existing town centers. The Campo Stone Store is an important historic building open to the public that adds to the historic character of the area. Lake Morena Park is an important visual resource on the Lake Morena lakefront with facilities for camping, fishing, hiking, and an entrance to the Pacific Crest Trail.

### *Boulevard*

Boulevard is a linear, highway-oriented community that has been altered by the construction of I-8. Boulevard has a rural character with a town center area. The Golden Acorn Casino in the community has expanded commercial development; however, most commercial development is comprised of small businesses and maintains its rural character. The natural resources in the area, such as large areas of open space and varied topography, are considered a visual resource to the community and the region.

### *Jacumba*

Jacumba is unique in both its natural and manmade settings and has a long history of human occupation. Natural attributes such as hot springs, a desert environment, and clean air attracted many residents to the area, which brought about the town's development and remain important natural resources.

### *Remaining Area*

The northern portions of the Subregion consist primarily of lands such as the Anza Borrego Desert State Park, agricultural preserves and other public lands. Mountain Empire residents recognize the presence of native oaks as a significant historical, aesthetic and ecological resource that contributes to its distinctive character. A variety of land formations are also located in the Subregion, some of which have scenic value.

## North County Metro Subregion

Development pressure from urbanized areas has resulted in single-family development patterns throughout the Subregion. The two main communities in this Subregion are Hidden Meadows and Twin Oaks; however, the Subregion contains several other developed or developing areas including the site of the approved Harmony Grove Village Specific Plan discussed further below. While topographically constrained areas remain largely undeveloped in the Twin Oaks and Hidden Meadows areas, both communities contain single-family homes with varying lot sizes. Additional unincorporated areas that are included in this Subregion are interspersed throughout the adjacent cities of Vista, San Marcos, and Escondido, and are predominately rural residential in nature but also provide multi-family uses. The Subregion does not have significant amounts

of commercial and industrial uses because these uses are generally found within the neighboring cities. The steep slopes that have constrained development in this area provide scenic rugged terrain. The Jesmond Dene Oaks located in this Subregion also have scenic value and contribute to the character of the subregion.

### *Hidden Meadows*

Hidden Meadows is a semi-rural community with an established village core. The area is characterized by steep slopes that are an important visual resource. The community is also known for the numerous rock outcrops that have been integrated into the development of the community.

### *Twin Oaks*

Steep slopes in the Twin Oaks community provide a visual resource and have constrained development that has helped to maintain the rural character of the area, especially in the northern area. Much of the land uses in community consist of avocado fields, nurseries, and tree farms that contribute to the scenic visual character.

### *Harmony Grove Village*

Harmony Grove Village is an approved specific plan in the southern portion of the North County Metro Subregion adjacent to Escondido. The specific plan proposes a village center providing residential and commercial uses. The village would maintain a rural and equestrian character with single-family residential development and large areas of open space. The specific plan also proposes multi-purpose recreational trails, including trails for equestrian use. As part of the General Plan Update, Harmony Grove Village and the surrounding area are proposed to be moved to the San Dieguito CPA.

## North Mountain Subregion

The North Mountain Subregion is characterized by vast open expanses of land and scattered rural residential development. The Aguana Mountains are a visual resource for this Subregion by providing a scenic mountainous landscape. The mountains are partially located within the Aqua Tibia Wilderness RCA and contain scenic rock outcroppings. Lake Henshaw is an important scenic water resource and recreation area for the Subregion. Other visual resources associated with Lake Henshaw are the San Luis Rey River, which empties into Lake Henshaw, and the Lake Henshaw Basin, which is characterized by vast expanses of grasslands and isolated oak woodlands. San Felipe Hills and San Felipe Valley are also important visual resources. The area is characterized by a series of large hills reaching 4,000 feet AMSL. This roadless area contains undisturbed desert-transition vegetation types that provide shelter for reptiles and desert birds. Additionally, the majority of the Mesa Grande area is within the Cleveland National Forest. This area is mountainous with elevations over 5,000 feet AMSL. Gem-bearing pegmatite producing tourmaline and topaz are known to occur in the area. Vegetation and wildlife in Mesa Grande is highly diverse. In the area surrounding Mesa Grande, vast acreages of relatively undisturbed oak woodlands occur supporting a wide range of species. Additionally, within the valley, rare riparian habitat occurs surrounded by steep chaparral-covered slopes. The Oak Grove area contains extensive chaparral, forested mountains, and grassland valleys that are characteristic of this community and contribute to its scenic visual character. Rural communities in the North Mountain Subregion include Santa Ysabel and Sunshine Summit, Warner Springs, Palomar Mountain, and Chihuahua Valley and

Ranchita. Each community is distinctly different, but common to all is the pursuit of a rural lifestyle. Additional discussions of these communities are provided below.

### *Santa Ysabel and Sunshine Summit*

Santa Ysabel and Sunshine Summit are smaller commercial areas that serve a scattered population in the surrounding rural areas. Santa Ysabel provides highway-oriented commercial uses which provide services to local residents and are a popular tourist destination for mountain areas visitors. Both are located along SR-78 and SR-79 and are characterized by large stands of oak and eucalyptus trees. These trees are important visual resources that distinguish these communities from their surroundings. Additionally, Santa Ysabel Valley in the Santa Ysabel Open Space Preserve is an important visual resource with sloping meadows and oak trees.

### *Warner Springs*

Warner Springs contains the Warner Springs Ranch Specific Plan. The ranch was first used as a resort in the late 1800s for travelers from New Mexico and Arizona and its use as a resort continues today. The Warner Springs Ranch supports various recreational amenities, resort lodging, commercial uses, residential uses within and adjacent to Warner Springs, range lands, and a Native American cultural preserve that are visual resources.

### *Palomar Mountain*

This area is located in the northwest portion of the Subregion. Dense forests of coniferous and deciduous trees provide the scenic mountain ambience that defines the community character of Palomar Mountain. Palomar Mountain supports montane coniferous forest and the related species found in this habitat. The montane coniferous forest is characterized by large trees and a well-shaded understory. The residential areas first experienced significant development in the early 1900s and some of the older cabins and other structures still exist. Today, the mountain supports both full and part-time residents, resulting in a mixture of types and sizes of residences, as well as the Palomar Mountain Observatory. The observatory is located in this area because of another visual resource of the community, its dark night sky. Palomar Mountain is also a unique historical area because it has been preserved, in part, by inclusion in the State Park System and as federal forest land.

### *Chihuahua Valley and Ranchita*

These are primarily low-density residential areas located in isolated valleys that support a relatively concentrated population. Historically Chihuahua Valley was used for cattle grazing. Continued use of the area for animal husbandry and other agriculture, combined with the availability of open space including hiking trails, provides visual resources for the area (Chihuahua 2008).

## Otay Subregion

The Otay community is characterized by rolling hills, vast open mesas, numerous river valleys and canyons, and a series of mountain ranges with steep, rugged terrain. Otay Mesa contains large undeveloped parcels of land, and is located near a large labor pool (Mexico), moderately priced housing and a general aviation airport (Brown Field), which makes it highly suitable for large scale industrial development. In addition, the Subregion also contains valuable agricultural land. The most distinguishing geographic features include the Upper and Lower Otay Reservoirs, Otay Mountain, and the Jamul and San Ysidro Mountain ranges. Two major canyons, O'Neal and Johnson, have been deeply cut into the northernmost edge of the mesa

and drain into the Otay River located within Otay Valley. Otay Valley, comprising the northerly portion of the area, contains at its center the relatively flat Otay River floodplain. The topography to the east of the mesa is characterized by low, gently rolling hills that gradually evolve into the deep slopes of the San Ysidro Mountains. A large portion of the land within the Subregion is either within a specific plan or contains public/semi-public uses. Industrial uses are present primarily in the East Otay Mesa Specific Plan, which encompasses an area of approximately 3,374 acres extending generally from the Otay River Valley southerly to the international border. The East Otay Mesa Specific Plan is bordered on the west by the City of San Diego and on the east by the San Ysidro Mountains.

**Pala/Pauma Valley Subregion**

Due to its relatively remote location and rugged topography, much of the CPA is either undeveloped, parkland, or in agricultural production. Land uses are rural and agricultural, with open space buffers providing a visual separation between communities. Commercial land uses in Pala/Pauma are located exclusively along SR-76 including the Pauma Valley Country Club. Additionally, two private airports are located in this Subregion: the Pauma Air Park and Lyall Roberts Airport. Several Native American Indian reservations are located in the Subregion, including Pala, Pauma/Yuima, Rincon, and La Jolla. Collectively, the reservations contain multiple casinos; however, they also provide scenic areas of open space. Pala Mountain and the San Luis Rey River are important visual resources because of large areas of undisturbed riparian woodland vegetation and large growth mixed chaparral vegetation on the mountain slopes. The rural community of Pala includes the Pala Pegmatite District, which contains extensive pegmatite dikes with gem-quality minerals. The Rincon Springs community also contains the Rincon Pegmatite District, which is an area containing scenic pegmatite dikes that have produced gem-quality minerals. It has been listed by the California Natural Area Coordinating Council as a significant natural area. The agricultural character of Pauma Valley is a visual resource with extensive citrus trees, avocado groves, and a large nursery.

**Pendleton/De Luz CPA**

The Pendleton/De Luz CPA is a rural region, characterized by steep topography and minimal development. The majority of the plan area is undeveloped with wild shrub and tree-covered mountains. The plan area is comprised of Marine Corps Base Camp Pendleton and the Cleveland National Forest. Access to the area is limited and over 75 percent of the planning area is under the jurisdiction of the U.S. military (Camp Pendleton), with the vast majority of the area population located on the military base. I-5 traverses the western edge of this planning area.

**Rainbow CPA**

Rainbow is a highly scenic rural community with low density development consisting primarily of agricultural uses centered within the town center. Septic problems, access issues, and topographic and biological constraints have greatly limited development and preserved open spaces in this area. The CPA contains relatively unspoiled natural topography and scenic resources, characterized by primarily undeveloped land, steep slopes and panoramic ridgeline views. The I-15 corridor that passes through the Rainbow area is considered scenic, characterized by mostly undeveloped land, steep slopes, ridges and panoramic views. Rainbow's town center is located along the I-15. In addition, the I-15 corridor is one of the major

entryways into San Diego County and has a rural and scenic quality. Pristine riparian valleys and steep rocky slopes are scattered throughout the CPA.

**Ramona CPA**

Ramona is a rural community with a well-developed town center area that prides itself on maintaining a country lifestyle. Residential development is similar to suburban development densities. While land use and lot sizes have considerable influence on the rural characteristics of the community, the visual aspects of the community and the "design ambiance" at the community scale preserve Ramona's rural atmosphere. Centralized industrial and commercial areas have been created to keep the residential and agricultural areas of the Goose Valley and Highland Valley free from industrial/commercial encroachment and to maintain the present lifestyle. Within the town center, design guidelines have been applied to existing developments to ensure that landscaping, lighting, siting of structures, appearance, and signage are compatible with the existing "country look" of the community. Additionally, the visual quality of the landscape is extremely important. Ridgelines are the scenic backdrop of the Santa Maria Valley that is significant to the visual character of the community. Other scenic features in Ramona are the historic town center, Main Street colonnade, street trees, Santa Maria Creek, vernal pools, wetlands, oak groves, grasslands, rock outcroppings, riding and hiking trails, and agricultural land.

**San Dieguito CPA**

The San Dieguito CPA is primarily an estate development area with many idyllic, rural qualities, as shown in Photo Location 8 in Figure 2.1-6. The residents are, generally, in the upper income levels and have purposely located in San Dieguito because of the peaceful, quiet, rural elements that the area offers. The combination of low noise levels, a dark night sky and abundant open space distinguishes this area from the urbanized development to the west. There are a number of communities within the San Dieguito CPA that have developed independently and have evolved distinct identities.

***4S Ranch***

The 4S Ranch Specific Plan encompasses the eastern portion of the CPA and is located just west of the City of San Diego community of Rancho Bernardo. This specific plan has a suburban character, with single-family residential development and a town center, interspersed with open space and recreational trails. In addition, this specific plan contains a business park.

***Rancho Santa Fe***

The design of the residential subdivision called Rancho Santa Fe was based on a concept that had its origins in the English countryside. The roads have a winding, rural appearance that tends to discourage high speeds and through traffic. The Rancho Santa Fe Association, a homeowners association, was formed as a non-profit corporation on July 14, 1927. The association adopted a protective covenant that used deed restrictions to maintain community style. This protective covenant set forth detailed building, land use and subdivision requirements. As it exists today, the Rancho Santa Fe covenant area covers approximately 6,200 acres. This area contains 1,830 residential building sites, 321 of which are unimproved.

### *Elfin Forest*

The settlement of Elfin Forest is located in the northern part of the San Dieguito CPA. This area is rural in nature, extremely quiet, peaceful, and generally remains in its natural state. Large areas of vacant land remain in Elfin Forest. The area contains mostly 2 and 4 acre minimum parcel sizes. There is no street lighting, lighted signs or traffic signals in Elfin Forest, making the dark night an important aesthetic resource. In addition, outside lighting of residences is customarily kept to a minimum. The most scenic views are of the hills, valleys and riparian habitat.

### *Del Dios*

Del Dios is a small community located along the western shores of Lake Hodges. The Lake Hodges Dam was constructed around 1918 to serve the water needs of downstream coastal areas. The original subdivision design of Del Dios included 5,000 square feet lots to promote the area for resort and recreational opportunities. A strict building and septic moratorium was placed on Del Dios in 1954 because of its proximity to the potable water supply within the lake. Since then, Del Dios has changed very little and it retains a unique rural character that has been unaffected by recent development trends. The Del Dios community has remained intact since the mid 1920s, and has served the region as a retreat from urban pressures.

### *Mount Israel*

Mount Israel is located in the mountainous area west of Lake Hodges and Del Dios. The area was once known as Aliso, and it was comprised of a community of homesteaders living between San Elijo Canyon and the San Dieguito River, northwest of what is now Lake Hodges. The Mount Israel area is noted for its peaceful, rural atmosphere with undisturbed natural views, oak groves and creeks. From many areas of the community there is a feeling of being totally isolated from urbanization.

### *Fairbanks Ranch and Vicinity*

This area is located, generally, south of the San Dieguito River and it is bounded by the limits of the City of San Diego on the south, west and east. It is separated from the primarily residential Santa Fe Valley Specific Plan located to the east by a line running due south from the confluence of the San Dieguito River and Lusardi Creek. The Fairbanks Ranch area has been developed since 1980 with single family detached dwellings on lots with two acre minimums. Existing residential development has taken place mainly on the low rolling hills south of the San Dieguito River and generally consists of beautiful residential projects with ample open space and recreational areas. Other important elements contributing to the character of this area are the native vegetation; the night skies that are free from light pollution; riding trails; and careful supervision of residential architecture by homeowners associations.

### *Sun Valley and Vicinity*

The Sun Valley area is comprised of a number of homeowners associations and other residentially subdivided land located between the incorporated cities of Solana Beach and Encinitas; the City of San Diego; and the covenant area of the Rancho Santa Fe Association.

When Solana Beach incorporated in 1985, this area was purposely excluded because the residents felt that they had more in common with the rural areas to the east. Hoping to maintain and enhance the rural aspects of their neighborhood, citizens from the area formulated a report describing those elements that give their neighborhood its unique character. The report also

included recommendations on how these qualities might be preserved. This area was generally characterized as being quiet, peaceful, serene, and scenic. The absence of urban type improvements like curbs, gutters and sidewalks help give the narrow, meandering roads a country like appearance. Also, the wooded corridor that Sun Valley Road follows from Linea del Cielo south toward Via de la Valle is a valuable visual resource. Low noise levels are a unique quality of this area which significantly enhances its character.

**Spring Valley CPA**

The Spring Valley area is an older suburban community with a wide range of development types due to fragmented ownership and subsequent development in the area. The community provides older semi-rural development in the northern area near Bancroft Drive, upper-income housing on Dictionary Hill and the adjacent slopes, tract-housing developments west of Spring Valley Creek, and areas with newly constructed apartment projects. This CPA is one of the most developed in the unincorporated area with little undeveloped area, as shown in Photo Location 9 in Figure 2.1-7; however, the Sweetwater River floodplain does provide scenic riparian and riparian woodland habitats that support a variety of wildlife.

**Sweetwater CPA**

Surrounded by highly urbanized areas, the Sweetwater community contains rural features with suburban development that make the Sweetwater River Valley unique. The visual character of the community includes large lots, hiking and riding trails, large open spaces, and unobstructed views of these open spaces. Sweetwater Road and Bonita Road are the principal roadways providing access to land uses within the community. Large areas of open space occur in many locations throughout the community. Two golf courses lie in the riverbed. Sweetwater and Rohr Parks line the south side of Sweetwater Road from Willows Road to Central Avenue. The San Diego National Wildlife Refuge, semi-public lands, and a section of undeveloped land known as Bonita Meadows make up the eastern portion of the Sweetwater area. Expansive unobstructed vistas, as well as Mother Miguel Mountain, are also important visual resources.

**Valle de Oro CPA**

The Valle de Oro community consists of a unique balance of urban, semi-rural, agricultural, and open space land uses. It contains three broad areas that are somewhat divergent in their individual character. The Mount Helix/Casa de Oro area generally consists of commercial and high-density residential land uses along Campo Road and low-density, high-income housing on the slopes of Mount Helix. To the east, the area gradually becomes more rural and agricultural in the vicinity of Jamacha Road. The Rancho San Diego in the southeast has been developed with large-scale, well-planned residential and commercial developments interspersed with large areas of green-belt open space and biological open space needed for wildlife preservation. This area also includes a 1,800-acre National Wildlife Refuge that offers opportunities for open space, habitat conservation, and limited forms of recreation. The Vista Grande Hills area in the northeast contains suburban and semi-rural development that transitions to more rural, agricultural, and estate-oriented development. Mother Miguel Mountain, Sweetwater Reservoir, and San Miguel Mountain are located in the vicinity of Valle de Oro and constitute important visual resources.

**Valley Center CPA**

Valley Center is characterized as a scenic, rural community with a combination of agricultural uses, riparian valleys, open space and rolling hills scattered throughout the plan area. Although urbanization has greatly diminished agricultural uses in other areas of the County, Valley Center has maintained its rural identity. A rural residential pattern of development, historically dependant upon septic systems, with scattered agricultural and livestock uses predominates the valley, as shown in Photo Location 10 in Figure 2.1-7. Two-lane roads that follow the natural topography, many of which are bordered with beautiful oak canopies, support the circulation system. The residents of Valley Center consider their community to be one of the few places where one can enjoy a scenic natural environment and climate, while at the same time live within a reasonable distance to areas for employment and other regional urban services. The rural character of the community has retained a dark nighttime sky which is considered an important resource due to the proximity of the Palomar Mountain Observatory.

## 2.1.2 Regulatory Framework

### *2.1.2.1 Federal*

**National Highway System (NHS) Designation Act of 1995**

This landmark legislation designates almost 260,000 kilometers (160,955 miles) of roads as the NHS. Title III, Section 304 of the legislation allows, but does not mandate, design standards for NHS projects that take into account the constructed and natural environment of the area including the environmental, scenic, aesthetic, historic, community, and preservation impacts of the proposed activity.

**National Historic Preservation Act (NHPA) of 1962**

The NHPA requires federal agencies to consider the effects of their undertakings on historic properties. In addition to other projects, prospective issuance of a Federal Communications Commission (FCC) license for construction of cell towers and other wireless communication facilities is an “undertaking” subject to Section 106 of the NHPA.

**Telecommunications Act of 1996**

This legislation of the FCC standardizes the playing field for telecommunications businesses. The legislation also prohibits local governments from banning wireless telecommunications towers, but gives local governments the right to enact ordinances to ensure wireless towers are sited and designed appropriately.

### *2.1.2.2 State*

**California Energy Code**

The California Energy Code creates standards in an effort to reduce energy consumption. The type of luminaries and the allowable wattage of certain outdoor lighting applications are regulated.

**California Street and Highways Code**

The California Street and Highways Code establishes standards for undertaking the development and designation of official scenic highways and assigns responsibility for the development of scenic highways to local jurisdictions. It establishes the State Scenic Highway system by designating highways that are either eligible for designation as a State Scenic Highway or have been designated as such.

**State Scenic Highways Program**

The California Scenic Highways Program was created by the California Scenic Highway Law in 1963 with the purpose of preserving and protecting scenic highway corridors from any change that would diminish the aesthetic value of lands adjacent to highways. State Scenic Highways are those highways that are either officially designated by Caltrans or are eligible for designation. The statewide system of scenic highways is part of the Master Plan of State Highways Eligible for Official State Designation as Scenic Highways. Scenic highway nominations are evaluated using the following criteria:

- The proposed scenic highway is principally within an unspoiled native habitat and showcases the unique aspects of the landscape, agriculture, or man-made water features;
- Existing visual intrusions do not significantly impact the scenic corridor;
- Strong local support for the proposed scenic highway designation is demonstrated; and
- The length of the proposed scenic highway is not short or segmented.

A highway's status changes from "eligible" to "officially designated" when the local jurisdiction adopts a Scenic Corridor Protection Program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as an official State Scenic Highway. Once a scenic highway is designated, the responsibility lies with the local jurisdiction to regulate development within the scenic highway corridor. This applies only to areas where the local agency has land use jurisdiction.

### *2.1.2.3 Local*

**San Diego County Board of Supervisors (BOS) Policy I-73, Hillside Development Policy**

The Hillside Development policy was adopted by the County of San Diego BOS in 1979 to minimize the effects of disturbing natural terrain and provides for creative design of hillside developments. The Hillside Development Policy provides flexible guidelines for reducing the effects of disturbance of steep slopes. Specifically, the guidelines aim to "preserve, enhance, or improve the physical features of the area consistent with providing building sites while at the same time optimizing the aesthetic quality of the final product." However, this policy is duplicative with the goals and policies of the General Plan Update and County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, the RPO. As described in Chapter 1.0, Project Description, the Hillside Development Policy is proposed to be repealed as part of the proposed project.

**Community Plans**

Individual community plans identify, and sometimes prioritize, policies for specific scenic corridors that are important resources for the community to preserve. Generally, these corridors are consistent with the priority list of scenic routes identified in the Conservation and Open Space Element. Community plans list and describe the RCAs that are located within the community and identify goals and policies for their protection.

**County Community Right-of-Way Development Standards**

Board Policy J-36, adopted December 1989, provides a procedure by which communities can deviate from the established County Public Road Standards, and replace or augment them with standards tailored to their community. The Community Right-of Way Development Standards provide alternative right-of-way regulatory standards within the road right-of-way that supersede the County Public Road Standards. The purpose of these Standards is to ensure that the road right-of-way is designed to better enhance and retain the character of individual communities while maintaining the safety of the roadway. Community Right-of-Way Development Standards have been prepared for the communities of Borrego Springs, Fallbrook, Julian, and San Dieguito.

**Design Review Guidelines**

Design review guidelines have been developed for the I-15 Corridor from the Escondido City Limit to the Riverside County Line and for the following communities of unincorporated San Diego County: Alpine, Bonsall, Fallbrook, Julian, Lakeside, Ramona, Rancho San Diego, Spring Valley, Sweetwater, and Valley Center. The design guidelines specify the types of design permitted in each community, including architecture, landscaping, building uses, designation of scenic roads, slope modifications, and overall visual effect.

**I-15 Corridor: Scenic Preservation Guidelines**

Scenic preservation guidelines have been established to help preserve viewsheds in five communities within the unincorporated county along the I-15 corridor. These communities are Rainbow, Fallbrook, Bonsall, Valley Center, and North County Metro. The guidelines seek to balance protection of scenic resources within the I-15 corridor area while accommodating "development which harmonizes with the natural environment." The guidelines establish standards to regulate the visual quality and the environmental integrity of the entire corridor and encourage scenic preservation and development practices compatible with the goals and policies of the five CPAs when appropriate.

**County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)**

The RPO protects a variety of resources, including steep slopes. The ordinance limits development on steep slopes through encroachment minimums, density restrictions on steep slope lands, and through requirements for steep slope areas to be placed in easements. The requirements of this ordinance therefore will often result in the protection of slopes in their natural state, which provides the added benefit of protecting a potential aesthetic resource. Other provisions of the RPO require preservation of sensitive habitat, floodplains, wetlands, and historic and cultural resources. In terms of the preservation of aesthetic resources, this policy

encourages the preservation of the existing natural terrain, established vegetation, and visually significant geologic displays.

**County of San Diego Code of Regulatory Ordinances Sections 59.101-59.115, Light Pollution Code (LPC)**

The LPC, or the Dark Sky Ordinance, was adopted "to minimize light pollution for the enjoyment and use of property and the night environment by the citizens of San Diego County and to protect the Palomar and Mount Laguna observatories from the effects of light pollution that have a detrimental effect on astronomical research by restricting the permitted use of outdoor light fixtures on private property" (Section 59.101). The LPC regulates applicants for any permit required by the County for work involving outdoor light fixtures, unless exempt. The LPC designates all areas within a 15-mile radius of each observatory as Zone A, with all other areas designated as Zone B. Zone A has more stringent lighting restrictions due to its proximity to the observatories, including limits on decorative lighting.

**Multiple Species Conservation Program (MSCP) and the County of San Diego Code of Regulatory Ordinances Sections 86.501-86.509, Biological Mitigation Ordinance (BMO)**

As a major program in the County that addresses land use, trails and its relationship with County parks, the MSCP, BMO, and supporting regulations help preserve the scenic value of lands within MSCP boundaries. These documents define how much native habitat, wildlife corridors, and linkage areas can be impacted or preserved.

**San Diego County Scenic Highway Program**

The San Diego County Scenic Highway Program establishes a scenic highway system priority list. Two officially designated State scenic highways exist in San Diego County, one of which is in the unincorporated area of the County. The rest of the routes in San Diego County's scenic highway program are listed as First, Second, or Third Priority Scenic Routes. There are six first priority routes, 16 second priority routes, and 38 third priority routes.

**San Diego County Zoning Ordinance**

The San Diego County Zoning Ordinance contains several ordinances that pertain to aesthetic character and resources. These are summarized below.

**San Diego County Zoning Ordinance, Sections 5200-5212, Scenic Area Regulations**

San Diego County Zoning Ordinance Sections 5200-5212 serve to regulate development in areas of high scenic value in order to exclude incompatible uses and structures, and preserve and enhance the scenic resources in adjacent areas. The regulations apply to areas of unique scenic value, including, but not limited to, scenic highway corridors designated by the County General Plan; critical viewshed and prime viewshed areas as designated on the Local Coastal Program Land Use Plan; and areas adjacent to significant recreational, historic, or scenic resources, including, but not limited to, federal and State parks.

### San Diego County Zoning Ordinance, Section 5749, Adopted 7-29-92, Specific Historic Districts

San Diego County Zoning Ordinance Section 5749 includes a provision for the establishment of Specific Historic Districts having their own review boards and specific review criteria. For more information of historic districts, refer to Section 2.5.2.3, Cultural and Paleontological Resources, Local Regulations and Standards.

### San Diego County Zoning Ordinance, Sections 5750-5758, Community Design Review Area Regulations

San Diego County Zoning Ordinance Sections 5750-5758 include provisions to provide for the maintenance and enhancement of a community's individual visual character and identity. The provisions require that a site plan be submitted for development within those areas having a Community Design Review Area Special Designator (Designator B). The provisions include exemptions to the site plan requirement for certain project types and provisions for granting a site plan waiver for Community Design Review. Currently, the following communities have developed Design Guidelines: Valley Center, Sweetwater, Fallbrook, Lakeside, Ramona, Spring Valley, Bonsall, and Alpine. The Community Design Review Area Special Designator also covers portions of I-15. The I-15 corridor has its own Scenic Preservation Guidelines and Design Review Board to review discretionary projects that are subject to the guidelines.

### San Diego County Zoning Ordinance, Sections 5900-5910, Adopted 11-18-81, Design Review Area Regulations

San Diego County Zoning Ordinance Sections 5900-5910 include provisions to ensure that future structures and development of a site will complement not only the site to be developed but also the surrounding areas and existing development. The provisions require that a site plan be submitted for certain discretionary project applications within those areas having a "D" zoning designator indicating the need for design review. The regulation requires that specific criteria be reviewed to achieve the objectives of the approving authority.

### San Diego County Zoning Ordinance, Sections 5700-5749, Historic/Archaeological Landmark and District Area Regulations

San Diego County Zoning Ordinance Section 5700-5749 include provisions intended to identify, preserve, and protect the historic, cultural, archeological and/or architectural resource values of designated landmarks and districts and encourages compatible uses and architectural design. Areas designated by the Historic/Archaeological Landmark District have an "H" special area designator while areas within a Specific Historic District are noted with a "J" special area designator. Where an "H" designator exists, the Historic Site Board, a board appointed by the BOS, may provide guidance to advise the Director of DPLU on historical/archeological matters. The Historic/Archeological Landmark and District Area Regulations include the requirements for a site plan review for certain discretionary projects, site plan review criteria, and site plan waiver provisions.

**San Diego County Zoning Ordinance, Section 6320, Amended by Ord. No. 9620 (New Series), Adopted 12-10-03, Humidity, Heat, Cold, and Glare**

San Diego County Zoning Ordinance Section 6320 has performance standards for glare for all commercial and industrial uses in residential, commercial, and identified industrial zones. All commercial and industrial uses subject to this section shall be operated in a manner that does not produce glare, which is readily detectable without instruments by the average person beyond the stated zones in this section.

**San Diego County Zoning Ordinance, Section 6322, Amended by Ord. No. 7110 (New Series), Adopted 4-02-86, Outdoor Lighting**

San Diego County Zoning Ordinance Section 6322 controls excessive or unnecessary outdoor light emissions which produce unwanted illumination of adjacent properties by restricting outdoor lighting usage.

**San Diego County Zoning Ordinance, Section 6324, Amended by Ord. No. 9690 (New Series), Adopted 12-15-04, Lighting Permitted in Required Yard**

San Diego County Zoning Ordinance Section 6324 establishes limitations upon lighting permitted in required yards by Section 4835; of particular importance is the limitation upon light trespass.

**San Diego County Zoning Ordinance, Section 6980, Adopted 4-30-03, Wireless Telecommunications Facilities**

San Diego County Zoning Ordinance, Section 6980, provides a uniform and comprehensive set of standards for the development, siting and installation of wireless telecommunications facilities.

## 2.1.3 Analysis of Project Impacts and Determination of Significance

### *2.1.3.1 Issue 1: Scenic Vistas*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Visual Resources, the proposed County General Plan Update would have a significant impact if it would obstruct, interrupt, or detract from a scenic vista that is visible from a:

- Public road;
- Trail within an adopted County or State trail system;
- Scenic vista or highway; or
- Recreational area.

## Impact Analysis

As described in Section 2.1.1, the County contains visual resources affording opportunities for scenic vistas in every community. The RCAs identified in Section 2.1.1.2 are the closest that the County comes to specifically designating scenic vistas. Many public roads in the County currently have views of RCAs or expanses of natural resources that for the purposes of this EIR would have the potential to be considered scenic vistas. Numerous public trails are also available throughout the County. As described in Section 2.14, Recreation, the County has developed a Regional Trails Plan and a Community Trails Master Plan. Two designated scenic highways are also located in the unincorporated County: These include SR-78 through the Anza-Borrego Desert State Park and SR-125 between I-8 and SR-94. Eligible scenic highways include portions of I-5, I-15, SR-94, I-8, SR-79, SR-78, and SR-76 within the unincorporated County. The County has identified additional roads as scenic in its County Scenic Highway System Priority List. Recreational areas available for public use throughout the County include parks, open space preserves and reserves. Additionally, the County contains a vast amount of publicly owned land that provides open space and visual relief from the human-made environment, including Cleveland National Forest in the Peninsular Ranges region and the Anza-Borrego Desert State Park in the Desert region. The proposed General Plan Update applies to the entire unincorporated County; therefore, it includes every scenic vista in the County, including those visible from public roads, trails, scenic highways, and recreational areas.

Views from scenic vistas within the County include coastlines, bays, lagoons, canyons, mesas, natural vegetation, historic or unique structures, and agricultural lands in the Coastal Plain region; various water resources such as rivers and reservoirs, and large open spaces including County reserves and parks in the Peninsular Ranges; and expansive views characterized by dramatic landforms, native desert habitat, and low desert valleys in the Desert region. The General Plan Update proposes land use designations that have the potential to result in new development (approximately 71,540 new homes as well as new commercial and industrial uses) that could obstruct, interrupt, or detract from a scenic vista. For example, a new housing development would have the potential to interrupt the view of a large open space area from an existing roadway. If future development or redevelopment is inconsistent with the surrounding landscape, it would detract from the scenic elements of a vista. Additionally, new infrastructure such as roads or bridges would have the potential to interrupt or detract from a scenic vista that previously did not include infrastructure or development. Therefore, the proposed project would have the potential to impact scenic vistas in the County.

### Federal, State, and Local Regulations and Existing Regulatory Processes

As noted in Section 2.1.2, there are a number of federal and State regulations currently in place that help protect the County's visual resources including RPO and design guidelines. The County Zoning Ordinance contains several regulations that pertain to aesthetic character and resources, as described above in Section 2.1.2.3, and implement the design and scenic preservation guidelines. The Scenic Area Regulations of the County Zoning Ordinance serve to regulate development in areas of high scenic value in order to exclude incompatible uses and structures, and preserve and enhance the scenic resources in adjacent areas. These areas are designated with a Scenic Area Designator (Designator S). The County Zoning Ordinance includes provisions for the maintenance and enhancement of a community's individual visual character and identity in areas with a Community Design Review Area Special Designator (Designator B). Projects within Designator B areas are typically regulated by the community's

design review guidelines. Additional areas having a Design Review Zoning Designator (Designator D) are subject to design review regulations that ensure that future structures and development will complement both the site and surrounding areas of existing development.

The most direct efforts currently taken by the County to minimize impacts to scenic vistas is through CEQA review of discretionary projects. The County has prepared guidelines specifically for reviewing impacts to scenic vistas. With the exception of CEQA review, few of the above regulations directly relate to the preservation of scenic vistas. Furthermore, design review guidelines and special area designators are only implemented in some areas and communities. Therefore, while a number of existing regulations and processes aid in reducing impacts to scenic vistas, they are not comprehensive to the issue.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains several goals and policies to protect scenic vistas by requiring development to preserve or conserve scenic features of the County. Goals and policies pertaining to scenic vistas are found in the Land Use, Mobility, and Conservation and Open Space Elements.

In the Land Use Element, part of Goal LU-6 is a built environment in balance with the natural environment. Policies supporting this goal are LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7 and LU-6.9. These policies direct development away from undeveloped areas with intact sensitive natural resources by designating these areas for very low-density or intensity land uses, support conservation-oriented project design, require certain residential subdivisions to conserve open space and natural resources, require incorporation of natural features into proposed development, require contiguous open space areas, and require new development to conform to the natural topography to limit grading and not significantly alter the dominant physical characteristics of a site. Policy LU-6.7 explicitly requires the preservation of scenic vistas and areas.

Specific goals for protecting resources are established in the Land Use Element for semi-rural and rural lands, which comprise the majority of land within the unincorporated County. The goal for these lands (LU-10) is to buffer communities, protect natural resources, and accommodate unique communities. Protection of natural resources is accomplished through Policies LU-10.1 and LU-10.2 that require new residential development to be integrated with existing neighborhoods by providing continuous recreational open space networks and requiring development to respect and conserve the unique natural features and rural character, while preserving sensitive or intact environmental resources.

The Mobility Element contains policies that protect scenic vistas along public roads and trails. Goal M-2, which proposes a roadway network that provides adequate capacity and environmental protection, is supported by Policy M-2.3 that requires the location and development of private roads to minimize impacts to significant biological, environmental resources and to minimize visual impacts.

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in the County of San Diego with respect to the following: the conservation, management, and utilization of natural and cultural resources; the protection and preservation of open space; and the provision of park and recreation resources." This Element includes Goal COS-11, which requires the preservation of scenic resources, including vistas of

important natural and unique features and minimization of impacts from development. Policies COS-11.1 and COS-11.2 supports the protection of scenic highways by promoting the connection of regionally significant natural features and points of visual interest via designated scenic corridors. Policy COS-11.1 also requires the protection of scenic vistas and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes. Other policies that support this goal that protect scenic vistas are Policies COS-11.3, COS-11.5, COS-11.6, and COS-11.7. These policies require future development to minimize visual impacts and preserve unique or special visual features, encourage the design of public improvements to blend into the landscape, restrict new billboards and other large-scale advertising within scenic corridors, and require new development to place utilities underground. Policy COS-11.4 ensures that scenic vistas in the publicly owned lands within the County are not significantly impacted. This policy requires coordination with adjacent federal and State agencies and jurisdictions to protect scenic resources and corridors that extend beyond the County's land use authority. Additionally, Goal COS-12 is to preserve prominent ridgelines and steep hillsides for their character and scenic value. This is accomplished through Policies COS-12.1 and COS-12.2 by maintaining lower-density semi-rural or rural designations in areas with steep slopes and requiring that new development be located below and away from prominent ridgelines so that structures are not silhouetted against the sky, in order to maintain scenic views of the slopes and ridgelines.

**Summary**

The land use designations and accompanying future development based on those designations proposed in the General Plan Update would have the potential to result in the obstruction, interruption, or detraction of a scenic vista as a result of future development activity. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect scenic vistas, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to scenic vistas and specific implementation programs are identified as mitigation.

### *2.1.3.2 Issue 2: Scenic Resources*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Visual Resources, the proposed County General Plan Update would have a significant impact if it would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of a neighborhood, community, State Scenic Highway, or localized area, including, but not limited to, landmarks (designated), historic resources, trees, and rock outcroppings.

**Impact Analysis**

The unincorporated County contains many scenic resources including mountains, watersheds, scenic geologic features, and RCAs that have been identified for protection because of their scenic value. Scenic resources throughout the County are summarized above in Section 2.1.3.1, Issue 1: Scenic Vistas. Scenic resources are often found in County parks, habitat

preserves, reservoirs, RCAs, MSCP areas, and other undeveloped lands throughout the County, but are found in more urbanized areas as well.

Future residential, commercial or infrastructure development consistent with the General Plan Update would have the potential to result in the removal or destruction of scenic neighborhood or community resources, such as historic resources, trees or rock outcroppings. Future development or redevelopment of General Plan Update land uses along the two designated state scenic highways located in the County would have the potential to detract from the visual quality of the scenic highway. Therefore, a potentially significant impact to State Scenic Highways would occur.

Impacts to historic resources in the unincorporated County are described in Section 2.5, Cultural Resources. As discussed in this section, new development under the proposed General Plan Update would have the potential to result in the destruction of historical resources through development activities such as grading, clearing, demolition, alteration, or structural relocation. Impacts would be similar for designated landmarks, which are often historical resources, such as the Julian Historic District. Landmarks are considered visual resources because they are unique to a community and communicate a sense of place. CPAs and Subregions have identified their own landmarks within RCAs, such as Tecate Peak in the Mountain Empire Subregion and El Cajon Mountain in the Alpine CPA. Development and redevelopment of land uses consistent with the General Plan Update would result in a significant impact to these resources if it would block public views of these resources. The General Plan Update proposes intensified development in several areas of the County compared to existing conditions, as described in greater detail in Section 2.1.3.3, Issue 3: Visual Character or Quality. Intensified development would block viewsheds that were previously available for viewing. For example, intensified development would be accommodated in the town center of Julian CPA. New development or redevelopment has the potential to obstruct views of Volcan Mountain, a visual landmark for the Julian CPA. Therefore, a potentially significant impact to historic resources or landmarks would occur.

Similarly, trees and rock outcroppings are located throughout the County that would have the potential to be considered visual resources because these resources are considered to contribute to the character and beauty of communities in their community plans. Some have been identified as RCAs for their scenic value. Examples of scenic trees are the Jesmond Dene oaks in the North County Metro Subregion and the eucalyptus groves in the Sweetwater CPA. Examples of scenic rock outcroppings include a scenic rock slab in Valley Center on Chaparral Ridge and the Mother Grundy rock formation in the Jamul/Dulzura area. The proposed project would result in a significant impact to trees and rock outcropping if development or redevelopment of General Plan Update land uses would block public views of these resources, or if it would result in the removal of the resource. The General Plan Update proposes intensified development in several areas of the County compared to existing conditions, as described in greater detail in Section 2.1.3.3, Issue 3: Visual Character or Quality. New development would have the potential to result in the removal of trees or rock outcroppings or block a viewshed of a resource. For example, intensified development would be accommodated in Crest/Dehesa Subregion, which has identified trees, especially oak woodland, and rock outcroppings as visual resources. The proposed project would have the potential to directly impact oak woodland and other woodland habitats in the Crest/Dehesa Subregion (refer to Table C-3 in Appendix C, Impacts to Vegetation Communities by CPA and Subregion). Therefore, a potentially significant impact to trees or rock outcroppings would occur.

### Federal, State, and Local Regulations and Existing Regulatory Processes

The existing regulations and processes that are relevant to scenic resources are the same as those identified for scenic vistas, described in Section 2.1.3.1 above. Similar to scenic vistas, most of these regulations indirectly assist with the preservation of scenic resources or are applied locally at the community level.

### Proposed General Plan Update Goals and Policies

As described in Section 2.1.3.1, Issue 1, above, the proposed General Plan Update includes several goals and policies that protect scenic resources, including Policies LU-10.1 and LU-10.2 that pertain specifically to scenic highways. Additionally, scenic resources would also be protected through the areas designated for protection or conservation, including lands outside of the County's jurisdiction that are anticipated to be conserved, areas designated for very limited development, and through applicable regulations that protect scenic resources. Each of these is described in detail under Section 2.1.3.1, Issue 1, above.

### Summary

Implementation of the proposed General Plan Update include land use designations that would potentially allow development to occur that would have the potential to remove or change a feature that contributes to the valued visual character or image of the neighborhood, community, State Scenic Highway, or localized area. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect scenic resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to scenic resources and specific implementation programs are identified as mitigation.

## *2.1.3.3 Issue 3: Visual Character or Quality*

### Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Visual Resources, the proposed County General Plan Update would have a significant impact if it would substantially degrade the existing visual character or quality of the site and its surroundings by introducing features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

### Impact Analysis

### Geologic Regions in the Unincorporated County

The unincorporated County consists of a variety of visual characteristics and qualities. As described above, the County consists of three geologic regions, each with its own general character: the low-lying Coastal Plain, the mountainous Peninsular Range, and the lowlands of

the Desert. Urban land uses are focused in the western third of the County, while the eastern two-thirds are largely undeveloped with mountains and desert dominating the landscape.

Primary aesthetic resources in the Coastal Plain region include coastlines, bays, lagoons, canyons, mesas, natural vegetation, historic or unique structures, and agricultural lands. Currently, urban land uses are focused in this region of the County. The proposed project's consistency with the existing character of each CPA and Subregion is described in detail below. The General Plan Update is generally consistent with the existing development character and quality of the Coastal Plain region because it proposes higher intensity land uses near existing town centers and developed areas, while maintaining lower intensity semi-rural and rural land uses in areas in the Coastal Plain region that currently support these types of land uses.

Several scenic water bodies and large open space areas characterize the visual quality of the Peninsular Range. Portions of the Peninsular Range are located within the SDCWA boundary and are currently developed with higher intensity development. Outside of the SDCWA boundary, the Peninsular Range is rural and semi-rural in character and contains many parks and open space reserves, including Cleveland National Forest, Agua Tibia Wilderness Area, San Mateo Canyon Wilderness, Palomar Mountain State Park, Cuyamaca Rancho State Park, and various County reserves and parks. The General Plan Update maintains the open space and low intensity development qualities of this region by continuing to concentrate development in this region within the SDCWA boundary, near existing higher intensity development. The proposed project would maintain low density rural development outside the SDCWA boundary that would be consistent with the large areas of open space that are a primary contributor to this region's visual character.

Most of the Desert region is located within the Anza-Borrego Desert State Park, a valuable visual resource that provides the scenic desert beauty that characterizes this region and attracts many visitors. Areas that are not part of the State park are generally characterized by rural and agricultural land uses, with some higher intensity development in Borrego Springs for resort and visitor serving uses. However, the General Plan Update maintains the visual quality of the desert by maintaining low density rural development in this region that is compatible with existing land uses and preserves the vast open space views of the desert. Higher density development is proposed for Borrego Springs and existing town centers, also consistent with the existing character in this region.

**FCI Areas**

Some areas of the County were affected by the FCI, which included approximately 91,000 acres of land in the County through the establishment of a 1 du/40 acres minimum parcel size in order to preserve the land's unique resources, the rural environment and open space. This initiative required a General Plan Amendment and rezone that remained in effect until December 31, 2010. The CPAs and Subregions affected by this measure include Alpine, Central Mountain, Desert, Jamul/Dulzura, Julian, Mountain Empire, North Mountain, Pendleton/De Luz, and Ramona. The General Plan Update does not apply to the FCI affected lands because the mandate was in effect until recently. Therefore, the General Plan Update would not affect the visual character or quality of FCI lands. A General Plan Amendment will be required to apply new land use designations to the FCI areas. If the proposed land uses would have potentially significant impacts that were not adequately addressed in this EIR, then additional CEQA environmental review would be required. Additional information regarding the FCI is provided in Section 2.9, Land Use.

### Conservation Subdivisions

The General Plan Update accommodates flexibility in subdivision design, through consolidation of development footprint, exceptions to standard lot design criteria, reductions in lot sizes, and removal of other barriers to innovative design. The purpose is to allow for greater preservation of environmental resources, agriculture, and open space, without compromising the development potential of a piece of land. However, this flexibility could result in a significant impact to community character because it would have the potential to result in different development patterns and characteristics than those in the existing community. Yet, subdivision development would be required to comply with the proposed General Plan Update and applicable community plan, which dictates the specific character of a community. Additionally, community compatibility would be considered as part of the subdivision approval process in order to safeguard community character.

### CPAs and Subregions

Each CPA and Subregion in the unincorporated County has a unique community character that would have the potential to be impacted by the proposed General Plan Update if it proposes land uses that are incompatible with the existing character of the community or would result in the loss of or adverse change to scenic resources that contribute to the community's character. While most of the General Plan Update designations are generally compatible with the existing communities, in most areas they allow for additional future development. Community character impacts can occur from one improperly designed and located development. Therefore, since the General Plan Update allows for future development, there is a potential of community character impacts.

Impacts to community character can also occur from a transformation of a community and an overall change of its character. The potential future development is typically more intense in the villages or town centers and less in the more rural and remote areas. The communities that would accommodate the most growth would also have the greatest potential to experience a substantial change in community character. As a result, potentially significant impacts to community character are possible for several communities.

The following section discusses in greater detail the compatibility of the proposed General Plan Update land use plan with existing land uses in each CPA or Subregion. Community character would have the potential to be adversely impacted by other environmental impacts of the General Plan Update. For example, an increase in ambient noise or traffic in an area that has identified a quiet setting as part of its community character would be a significant impact to the character of the area. Refer to the other sections of Chapter 2.0 for the analysis of the other potential environmental impacts of the proposed project, such as Section 2.11, Noise, and Section 2.15, Transportation and Traffic.

#### *Alpine CPA*

Alpine is a rural community with a well-developed town center area that is the central commercial and industrial hub, with higher density residential. A portion of the CPA is outside of the SDCWA boundary. This area is characterized by low density estate residential development. These land uses are considered to influence the rural characteristics and visual quality of the community. Large areas of land in the northern and southeast portions of the CPA are tribal lands that are not under the jurisdiction of the County and public/semi-public lands,

both of which consist primarily of open space. Under the proposed General Plan Update, general commercial is planned for the existing town center, surrounded by village and semi-rural residential areas, primarily in the center of the CPA along I-8. Moving away from the town center, residential densities transition to semi-rural and then to rural lands to provide a buffer between the open space and proposed development. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate intensified development within the town center which would have the potential to result in substantial changes to the Alpine community character. There is also a large area designated for industrial development that would be located to the northwest of the Tavern Road/I-8 interchange. Design guidelines are currently in place to guide future development within the town center in order to maintain a rustic village character.

### *Bonsall CPA*

Bonsall is a rural community consisting primarily of low-density estate type residential and agricultural uses. Agriculture is a key factor in Bonsall's rural community character. Residents value the large open spaces between houses, screening vegetation, beauty of natural landforms, natural resources and features, lack of noise and congestion, unobstructed ridgelines, and the presence of agriculture and animal farming. Under the proposed General Plan Update almost the entire CPA is designated as rural or semi-rural residential except for areas in an around its town center. Nevertheless, a substantial amount of additional development would have the potential to occur under the General Plan Update. Agricultural uses are allowed under all General Plan Update land use designations and would continue in Bonsall. A portion of land in the northern part of the CPA is designated for village residential and general commercial uses, which would increase development in this area. If not property planned and designed, this development would have the potential to result in impacts to the community character. Future development in other areas of the CPA would have the potential to result in community character impacts as well. New development would be subject to the Bonsall Community Plan and Design Guidelines in existence for the community.

### *Central Mountain Subregion*

The community character of this Subregion is generally defined by large lot, single-family residential development, grazing and dry farming land, and undeveloped open space. The majority of the Subregion is open space and is part of the Cleveland National Forest or Cuyamaca Rancho State Park, or part of a tribal reservation. The northern portion of the Central Mountain Subregion is mostly undeveloped while the southern portion contains some rural development. The Subregion contains several rural communities that are generally characterized by low density development, including Cuyamaca, Descanso, Guatay, and Pine Valley. Pine Valley, Descanso and the Guatay area have small town centers with commercial development. The proposed General Plan Update would be consistent with these land uses and proposes commercial and semi-rural residential uses in Descanso, Pine Valley, and Guatay. The rest of the Subregion where the County has jurisdiction is designated for rural uses only. Some of the areas in the northern portion of the Subregion that proposed for rural residential use are currently undeveloped. However, the General Plan Update proposes very low density development of one dwelling unit to every 40 or 80 acres so that open space would be maintained and the proposed land use designations would be compatible with the existing open space character. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate intensified development within the town centers which would have the potential to result in substantial changes to the visual character of the Central Mountain communities.

### *County Islands CPA*

The County Islands CPA is comprised of three small, non-contiguous, isolated areas interspersed within incorporated areas. These separate areas are known as Lincoln Acres, Greenwood, and Mira Mesa. Each area is characterized by one or two primary land uses due to its small size. The General Plan Update proposes land use designations that are nearly identical to existing land uses for all three areas. The Lincoln Acres area is currently characterized by single family residences and a cemetery and the General Plan Update designates the area as village residential and public/semi public facilities, which includes cemetery use. Greenwood is entirely encompassed by a cemetery and is proposed for public/semi-public facilities. Mira Mesa is comprised predominantly of low density development and equestrian-oriented uses. The General Plan Update designates this area as rural land, which would be generally compatible with the existing uses.

### *Crest/Dehesa/Harbison Canyon/Granite Hills Subregion*

The Crest/Dehesa/Harbison Canyon/Granite Hills Subregion contains four separate communities that are semi-rural or rural in nature, each with a town center area containing general commercial and semi-rural or village residential densities. The rest of the Subregion consists of low density development, tribal land and open space, and a specific plan. The General Plan Update would maintain the existing town centers by proposing general commercial and semi-rural development in these areas. The majority of the remaining Subregion area is designated for rural development, with some areas of semi-rural residential. This is generally consistent with existing development between communities and along the southern boundary of the Subregion, which contains primarily open space and rural residential development. However, the General Plan Update would accommodate intensified development within the town centers which would have the potential to result in substantial changes to the character of the Crest/Dehesa community.

### *Desert Subregion*

This Subregion has a natural desert ambiance and rural town character. The majority of this Subregion is within Anza-Borrego Desert State Park, which is mostly open space and is not under the land use jurisdiction of the County. A great deal of scenic and recreational value is gained from the presence of the Anza-Borrego State Park within the Subregion. The Subregion contains one community, Borrego Springs, which is a low-density rural and commercial community containing a diverse but small-scale commercial area, low density permanent and seasonal homes, hotels and tourist resorts. Outside of Borrego Springs, some agricultural and rural development exists. Some additional development is concentrated in the Ocotillo Wells area near the Ocotillo Airport along SR-78. The proposed General Plan Update would be consistent with the existing commercial and semi-rural uses in Borrego Springs and the rural development throughout the remainder of the Subregion. However, the General Plan Update also accommodates a substantial amount of future growth in the Borrego Springs area. The growth has the potential to result is substantial changes to the communities character in and around the center of Borrego. The General Plan Update also provides for future residential growth in the northwestern portion of the Borrego Springs community where there is currently a substantial amount of agriculture. Therefore, in the future the character of this area will likely convert to a residential area.

### *Fallbrook CPA*

Fallbrook contains a vibrant and prosperous town center that is important to its character and is the primary commercial and industrial area in the community. Outside of the town center,

Fallbrook has a rural and agricultural character. Development generally decreases in density as distance from the town center increases, so that development surrounding the town center is semi-rural, while development farther from the town center is very rural. The proposed General Plan Update would be generally consistent with the existing land uses in Fallbrook. Rural and general commercial, light impact industrial uses, and village land uses are proposed in the town center. Outside of the town center, semi-rural residential is proposed that decreases in density moving away from to town center, and eventually becomes rural along the northern and southern CPA boundaries. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate intensified development within the town center which would have the potential to result in substantial changes to the character of the Fallbrook community.

The Fallbrook CPA also encompasses a portion of the I-15 corridor. In this area, the I-15 corridor consists of a number of specific planning areas separated by semi-rural and rural lands. While many of the area have been developed, some remain to be built. One area that is subject to the planning of the General Plan Update is the area to the north and southeast of the I-15 interchange. In additional to a new community college, this area is slated for a substantial amount of future development that would transform the character of this area.

### *Jamul/Dulzura Subregion*

Important to the character of the Jamul/Dulzura Subregion are the historical aspects of the community and the preservation of environmental resources and rural character. Generally, the Subregion has remained rural in character due in part to the fact that only a portion of the Subregion is within the SDCWA boundary. The Jamul/Dulzura Subregion is composed of several small communities including Jamul, Steele Canyon, Dulzura, and Barrett Junction that are all rural in character. Commercial activities and higher density residential uses are concentrated within the SDCWA boundary in the northwestern portion of the Subregion. Agriculture is a major land use in the eastern portion of the Subregion. The General Plan Update would be generally consistent with existing land uses. The northwestern portion of the Subregion is proposed for semi-rural and commercial development, and the rest of the Subregion is designated as rural land.

### *Julian CPA*

Julian continues to remind visitors of its colorful gold-rush past by preserving the Julian Historical District which is the town center of Julian and contains the highest intensity semi-rural and commercial development, along with some industrial development. Primarily rural development exists outside of the historic district. Large ranches dedicate expanses of land to grazing and smaller ranches often support orchards or wineries. An area of industrial development and another area of commercial development exist in the western portion of the CPA, along the SR-78/79 corridor. The proposed General Plan Update would be consistent with these existing land uses, by proposing commercial, industrial, and semi-rural land uses in the Historical District and along the SR-78/79 corridor where commercial and industrial uses already exist. The remainder of the CPA not designated as open space under the General Plan Update would be designated for semi-rural or rural use. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate intensified development within the town center area which would have the potential to result in substantial changes to the character of the Julian community.

### *Lakeside CPA*

Lakeside is a primarily residential community with a rural character. The southern portion and eastern boundary of the CPA are mostly developed with semi-rural or higher density residential development and commercial and industrial areas, while the northern portion of the CPA is primarily rural development and open space. The General Plan Update would maintain these land uses, including higher density village residential in the southwest portion of the CPA and lower density rural residential closer to the SDCWA boundary. As a result, intensification of residential and commercial uses would be accommodated within the Lakeside town center, and along major thoroughfares such as Winter Gardens Boulevard and Old Highway 80. This future development would likely result in some transformations to the community character. Lakeside maintains Design Review Guidelines that will help guide this future development in a manner that is desired by the community.

### *Mountain Empire Subregion*

The Mountain Empire Subregion contains six communities/areas that have their own unique identities. These areas are Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba and the remainder of the plan area.

Tecate currently contains general commercial uses and medium impact industrial uses adjacent to the U.S./Mexico international border. These areas would remain commercial and industrial under the proposed General Plan Update; however, the General Plan Update would also allow for a substantial amount of new commercial and industrial growth in the community. In the future, the community will likely see a transformation as business and shops are developed due to the community's proximity to the large population of Tecate, Mexico, and the presence of a Border crossing. The remainder of Tecate is generally open space with some rural development. The General Plan Update proposes rural development with a low density of one du/40 acres in most of the remaining Tecate area and some open space, which would be generally consistent with the existing rural development.

In Potrero, rural commercial uses are located in the town center along SR-94 and an area of semi-rural development exists in the middle of the community. These areas would remain semi-rural areas under the General Plan Update. The remainder of this community consists of semi-rural residential along major roads with sporadic commercial uses and rural designations and open space for the remainder of the area. The proposed General Plan Update would maintain these land uses and future growth would be minimal.

Commercial development and semi-rural land uses are currently concentrated along the I-8 in the community of Boulevard, and would remain so under the proposed General Plan Update. Rural land uses would be proposed outside of the Boulevard town center, which is also consistent with the existing development in this area. Boulevard has experienced some pressure for additional development (similar to that planned for Jacumba) that would have the potential to result in a substantial change in character to the community and surrounding area. However, due to limited community support, this is not reflected in General Plan Update. Boulevard is also impacted by the uses of the Campo Reservation to the west and pressures for energy infrastructure and wind energy projects. These types of projects are discussed in Section 2.1.4, Cumulative Impacts.

In the Campo/Lake Morena area, the General Plan Update maintains the existing commercial and residential development located adjacent to Morena Reservoir in Morena Village with

minimal new development. The land use designations proposed along SR-94 by the General Plan Update would accommodate greater commercial and residential growth in the neighborhoods of Cameron Corners and Campo. Intensified development in Cameron Corners and Campo, including village residential and industrial land uses, would have the potential to result in substantial changes to the rural character of these communities. A private project (Star Ranch) is currently being planned for this area at higher intensities than the General Plan Update. There are also pressures in the community to increase growth beyond that planned by the General Plan Update and Star Ranch. The remainder of this subarea is composed primarily of rural with semi-rural areas closer to the major roadways. The General Plan Update proposes similar development patterns for these areas.

The community of Jacumba has commercial development and residential and agricultural development in the Jacumba town center along SR-94 and in a very small commercial area along I-8. These areas would remain the only commercial designations in the area under the General Plan Update; however, there is an expanse of land covering the land in between these two areas that is covered by a specific plan (Ketchum Ranch). Development in this area south of I-8 is currently very sparse. The specific plan accommodates a large amount of additional residential and commercial development that would have the potential to redefine the whole valley. The private project to prepare the specific plan to cover this development is underway. The remainder of the subarea is open space with very scattered rural development. Under the proposed General Plan Update, the portion of the subarea north of I-8 would remain open space.

### *North County Metro Subregion*

The North County Metro Subregion generally consists of single-family development throughout the Subregion. The two main communities in this Subregion are Hidden Meadows, which is located east of the I-15, and Twin Oaks, which is located west of the I-15. Both communities contain primarily single-family residences with varying lot sizes. Commercial development currently exists in two areas along I-15 in Hidden Meadows. The southern commercial area is a higher density area, while the northern commercial area is surrounded by more rural development and a golf course. Semi rural development exists throughout the remainder of the Hidden Meadows area. The proposed General Plan Update would maintain the two existing commercial areas and semi-rural development throughout the community. Hidden Meadows also contains several residential specific plans, most of which have been built. The specific plans that have not been developed would be required to comply with the existing community character, as described in the General Plan Update policies below.

West of the I-15, in the Twin Oaks area, the southern and western portion of the community consists of commercial and institutional areas, agriculture, and semi-rural residential development. The northern portion of the community generally consists of open space with some scattered residential development. The General Plan Update proposes development that is consistent with the rural commercial and semi-rural development in the southern portion of the community and the lower density semi-rural and rural development in the northern community area. To the west of Twin Oaks, pockets of unincorporated land extend to the city boundaries of Vista and San Marcos. The proposed land use densities generally increase towards these cities. The General Plan Update proposes higher density residential and commercial land uses in the proximity of the Buena Creek Sprinter Station. When realized, this area would have the potential to become of a hub of commercial and residential uses, in

contrast to the single family residences and low intensity commercial uses that are found there today.

Additional unincorporated areas that are included in this Subregion are interspersed throughout the Cities of Vista, San Marcos, and Escondido, and are predominately rural residential in nature with some multi-family uses. These land uses would remain similar under the proposed General Plan Update.

### *North Mountain Subregion*

The Mountain Subregion is very rural with scattered development. The main commercial areas are small and rural in nature and exist along SR-76 in Santa Ysabel and in Warner Springs. Smaller rural communities exist along the eastern boundary of the Subregion in Ranchita and in the northern portion of the Subregion along SR-79. Semi-rural development surrounds these commercial areas. Otherwise, the North Mountain Subregion is characterized by vast open expanses of land and scattered rural residential development. The proposed General Plan Update would be generally consistent with existing land uses in the Subregion by maintaining rural commercial designations in existing commercial areas and proposing semi-rural development in the surrounding areas. Under the General Plan Update, the rest of the Subregion would be designated for rural development or open space. A slightly more dense semi-rural residential area would be designated in the northeastern portion of the Subregion; however, this area currently contains higher density development than elsewhere in the Subregion.

### *Otay CPA*

The Otay CPA is characterized by rolling hills, vast open mesas, numerous river valleys and canyons, and a series of mountain ranges with steep, rugged terrain. Otay Mesa contains large undeveloped parcels of land. The majority of the land within the CPA is either within a specific plan area or contains public/semi-public uses, specifically the County's George F. Bailey Detention Facility and the Richard J. Donovan Correctional Facility. Industrial uses are present primarily in the East Otay Mesa Specific Plan along the U.S./Mexico international border. Scattered development exists along the border of the East Otay Mesa Specific Plan and in a specific plan along Otay Lakes Road. The proposed General Plan Update would maintain the two specific plans discussed above and the public/semi-public use areas around the detention and correctional facilities. Additionally, the General Plan Update proposes rural development outside of the East Otay Mesa Specific Plan and open space throughout the rest of the CPA, generally consistent with existing conditions.

### *Pala/Pauma Valley Subregion*

Due to its relatively remote location and rugged topography, much of the CPA is either undeveloped, parkland, or in agricultural production. The northern Pauma Valley region has more semi-rural development than in the southern region, which is generally rural. Land uses are low-density residential and agricultural, with open space buffers providing a visual separation between communities. The General Plan Update proposes semi-rural residential development in the north of the CPA with scattered rural residential development, and rural residential development in the south, consistent with existing conditions. Commercial land uses in Pala/Pauma are located exclusively along SR-76. The commercial areas and surrounding area in the middle of the Subregion currently contains the highest density development. The General Plan Update would be generally consistent with the current development pattern and

would designate rural commercial and higher density residential uses along SR-76 in Pauma Valley and Rincon Springs.

### *Pendleton/De Luz CPA*

The Pendleton/De Luz CPA consists primarily of USMC Camp Pendleton, where the County does not have land use jurisdiction. However, the community of De Luz is located in the northeastern portion of the CPA and primarily consists of semi-rural development and open space. The General Plan Update would propose similar uses, including semi-rural development surrounded by rural land, which acts as a buffer between the semi-rural areas and open space areas.

### *Rainbow CPA*

Rainbow is primarily a low density development community consisting primarily of agricultural uses on semi-rural lots centered on the town center. Rainbow's town center is located near the I-15 and contains commercial and higher density development. The proposed General Plan Update would be generally consistent with these land uses and maintain commercial, higher density semi-rural, and village residential development near I-15. Low-density semi-rural and rural uses are proposed throughout the remainder of the CPA, consistent with existing uses that maintain open space buffers between rural properties. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate some intensified development within the town center which would have the potential to result in changes to the character of the Rainbow community.

### *Ramona CPA*

Ramona is a rural community with a well-developed town center that maintains a country lifestyle. Residential developments in the town center, west of the town center along SR-67, and southeast of the town center north of the Barona Reservation are similar to suburban development densities. Centralized industrial and commercial areas in the town center and the area north of the Barona Reservation have been created to keep the residential and agricultural areas of Goose Valley and Highland Valley free from industrial/commercial encroachment. The proposed General Plan Update would be consistent with the existing land use pattern of the area by proposing commercial, industrial, and relatively higher density semi-rural and village residential uses in the areas where these uses currently exist. Future development in the town center would have the potential to affect the character of the community by intensifying residential, commercial and industrial development. Ramona maintains Design Review Guidelines to help guide future growth in a manner that is compatible with the community. Moving away from the town center, the character of the community would transition to lower density semi-rural and rural development proposed in the western and eastern portions of the CPA.

### *San Dieguito CPA*

The San Dieguito CPA is primarily developed with estate, semi-rural residential development including several specific plans, most of which have been or are currently being developed. An established town center with higher density residential uses exists in the Rancho Santa Fe area. The proposed General Plan Update would maintain the primarily residential uses throughout the CPA. Higher density semi-rural and village development would be concentrated in the existing Rancho Santa Fe town center and on the northern and southern boundaries of the CPA adjacent to the more urbanized incorporated Cities of San Marcos, Carlsbad, San Diego, and Escondido. The proposed General Plan Update would maintain the specific plan areas and

semi-rural residential development throughout the CPA. Rural development would be scattered throughout the CPA, with a large rural area in the north, consistent with the existing open space area in the northeast portion of the CPA. While this is generally consistent with the existing development pattern of the community, the General Plan Update would accommodate intensified development within the town center which would have the potential to result in substantial changes to the character of the San Dieguito community.

### *Spring Valley CPA*

This CPA is one of the most developed in the unincorporated County with little undeveloped area, except in the southern portion adjacent to Sweetwater Reservoir and a small amount in the middle of the CPA. Development is concentrated along the borders of the CPA and consists of moderate to high density village residential development with commercial and industrial uses throughout. A large specific plan in the southeast portion of the CPA contains village residential development surrounded by open space. The proposed General Plan Update would continue to concentrate development along the borders of the CPA, except near Sweetwater Reservoir, where high density residential, commercial, and industrial uses already exist. The lowest density semi-rural development is proposed for the center of the CPA which currently has the lowest density development in the CPA and contains open space with some semi-rural development. The proposed semi-rural land use designation would have the potential to result in an increase in density in this area. However, the proposed semi-rural development would be generally consistent with the surrounding more developed uses in the CPA, including existing semi-rural development.

### *Sweetwater CPA*

The Sweetwater community contains rural features with suburban development that makes the Sweetwater River Valley unique. The western portion of the CPA is mostly developed with single family residences with village or semi-rural development densities. Commercial areas are also located in the western portion of the CPA. The eastern portion of the CPA primarily consists of undeveloped open space. The proposed General Plan Update would maintain higher intensity development in the western portion of the CPA, including semi-rural, village residential, and general commercial development. The General Plan Update proposes rural residential development in a primarily undeveloped area on the southeastern boundary of the Sweetwater community. This land use would be generally consistent with nearby residential areas in the City of Chula Vista to the east and south. In addition, the proposed rural density would allow for the preservation of open space, which would be consistent with the surrounding open space in the Sweetwater CPA.

### *Valle de Oro CPA*

The Valle de Oro community consists of a unique balance of urban, semi-rural, agricultural, and open space land uses. The Mount Helix/Casa de Oro area in the western portion of the CPA generally consists of commercial and higher density residential land uses. To the east, the area gradually becomes semi-rural and agricultural in the vicinity of Jamacha Road, with little open space. The Rancho San Diego area in the southeast has been developed with higher density residential and commercial developments interspersed with areas of open space. This area also includes a 1,800-acre National Wildlife Refuge that provides open space in the southern portion of the CPA. The General Plan Update would be generally consistent with the development pattern of the area by proposing semi-rural, village and commercial uses in the western and northern portions of the CPA where such development currently exists. In addition,

lower density semi-rural uses would be proposed in the currently semi-rural agricultural area in the eastern portion of the CPA.

### *Valley Center CPA*

Valley Center is characterized by a rural and semi-rural residential pattern of development, with scattered agricultural and livestock uses. Commercial and higher density residential uses are concentrated along Valley Center Road in the town center. Rural development is located along the edges of the CPA consistent with neighboring tribal lands and open space and rural land uses in adjacent CPAs. The General Plan Update proposes a similar land use pattern with commercial, industrial, and higher density residential development in the town center, surrounded by semi-rural residential development, with rural uses closer to the CPA boundaries. The village residential and commercial uses proposed in the town center will likely increase development intensity in this area. It is anticipated that the Valley Center town center, which is divided into northern and southern "nodes," will experience a significant increase in density under the General Plan Update. While the community maintains Design Review Guidelines, increased scrutiny or guidance will be necessary for this growth to occur in a manner that does not completely change the identity of the community.

## Federal, State, and Local Regulations and Existing Regulatory Processes

Visual character and quality is currently addressed through many of the same regulations and processes described in Section 2.1.3.1, Issue 1: Scenic Vistas. For visual character, those regulations that relate to preservation of the natural environment (such as RPO) have greater relevance in rural communities and less in developed areas. However, natural features would have the potential to still be key components of a community's visual character or quality. Those regulations that relate specifically to the built form of a community (such as design review designators and guidelines) are directly relevant to visual character and quality. Additionally, the Zoning Ordinance contains additional controls beyond those discussed under Section 2.1.3.1 that relate to visual character, including density, size, massing, coverage, scale, color, architecture, and building materials requirements.

## Proposed General Plan Update Goals and Policies

In addition to the goals and policies described above in Issues 1 and 2 that would protect scenic resources and vistas, the General Plan Update includes goals and policies to protect visual character or quality, within communities and in the unincorporated County as a whole. Two guiding principles of the General Plan Update address community character. Guiding principle #3 would reinforce the vitality, local economy, and individual character of existing communities and guiding principle #4 would promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character. Additionally, the Land Use, Mobility, and Housing Elements contain goals and policies to protect community character.

In the Land Use Element, Goal LU-2 is to conserve and enhance the unincorporated County's varied communities, rural setting and community character. This is implemented through Policies LU-2.1 through LU-2.5 require community plans to be maintained and to guide development to reflect character, densities and minimum lots sizes to be compatible with character, and greenbelts to be established to reinforce identity of individual communities. Additionally, Policy LU-1.4 allows for the expansion of village density areas where consistent

with community character. Goal LU-4 is to maintain a land use plan that is coordinated with the plans and activities of other agencies that relate to community character. Policies LU-4.1 through LU-4.4 require the County to participate in regional planning; review, comment, and coordinate when appropriate on the plans, projects, and proposals of neighboring jurisdictions; consider the plans of overlapping and neighboring agencies and invite comments and coordination when appropriate; and ensure compatibility with U.S. government military installations. Goals LU-11 and LU-12 require commercial, office and industrial development (LU-11), and public services (LU-12), to consider community character. Policy LU-11.2 requires commercial, office, and industrial development to be compatible with community character. Policy LU-12.4 requires that public utilities and facilities be planned and sited in a manner compatible with community character.

The Mobility Element contains several policies that require roadways and parking to be consistent with community character. Policies regarding proposed roadways and community character are discussed in Section 2.9, Land Use. In addition to these policies, Goal M-10 supports the enforcement of parking regulations to enhance community character and Policy M-10.6 requires design of parking outside of villages and rural villages to be consistent with rural character. The Housing Element contains Goal H-2.A, which calls for neighborhoods to respect local character and the natural environment, and Policy H-2.1 which requires development to be designed in a manner that respects community character. In addition, as discussed above, several communities have prepared design guidelines that would protect the visual character and quality of development occurring in these communities.

**Summary**

Implementation of the proposed General Plan Update includes land use designations that would result in increased development densities in some areas of the unincorporated County that would have the potential to degrade the existing visual character or quality of a community. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect visual character and quality, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to visual character or quality and specific implementation programs are identified as mitigation.

### *2.1.3.4 Issue 4: Light or Glare*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Dark Skies and Glare, the proposed County General Plan Update would have a significant impact if it would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

**Impact Analysis**

The proposed General Plan Update would have the potential to result in a substantial new source of light or glare from new development or redevelopment that requires night lighting, such as security lighting in commercial areas, or from the use of materials that would result in

glare, such as expanses of glass on office buildings. As discussed above, most of the proposed General Plan Update land use designations would be consistent with existing conditions, though intensified development would be accommodated in several town centers, such as in the San Dieguito and Rainbow CPAs. Building materials and outdoor lighting used in the development or redevelopment of residential, commercial, industrial, or public/semi-public uses would have the potential to result in a new source of glare and/or lighting. Of particular concern are new sources of night lighting that would have the potential to cause light trespass and light pollution which would affect the Palomar Mountain and Mount Laguna Observatories.

**Glare**

Glare is a continuous or periodic intense light that is greater than the luminance to which the eyes are adapted and would have the potential to cause annoyance, discomfort or visual impairment, and can be a nuisance or hazard. Glare commonly occurs when an object is significantly brighter in contrast to the rest of the viewshed, such as light reflecting off an expanse of glass, such as those that are found in commercial or industrial developments. Potentially reflective exterior building materials can affect motorists, cyclists, pedestrians or other persons within sight of the project depending on the position of the sun, outdoor lighting and/or building materials. Future development or redevelopment consistent with he proposed General Plan Update would cause glare impacts if it would result in the installation of highly reflective building materials that create glare or not conform to applicable federal, State, or local regulations related to glare. Reflective building materials such as large expanses glass are commonly used in office professional land uses to provide office windows and commercial land uses to display goods or advertisements in store-fronts; however, reflective materials have the potential to be used in any type of development. The CPA and Subregions that would accommodate the greatest amount of office professional land use would be the Desert Subregion (27 acres), Valle de Oro CPA (24 acres), and North County Metro Subregion (66 acres). Commercial land uses are proposed throughout the County, but the planning areas that would accommodate the greatest amount of commercial land use are the Desert Subregion (655 acres), Lakeside CPA (403 acres), Mountain Empire Subregion (406 acres), and Ramona CPA (399 acres).

**Lighting**

Daytime lighting would not result in a substantial new source of light or result in light pollution or light trespass because these conditions do not normally occur during the day when light is plentiful. However, excessive nighttime lighting would have the potential to result in light pollution, also called skyglow, which is the haze of light that surrounds highly populated areas and is the result of brightening of the night sky from both artificial (outdoor) and natural (atmospheric and celestial) light. Skyglow reduces the ability to see stars and other features of the nighttime sky, which is of particular importance to the Palomar Mountain and Mount Laguna Observatories located in San Diego County. Light pollution interferes with operation of the observatory telescopes, which can detect the faintest galaxies when dark skies are available. Excessive lighting would have the potential to also have an adverse impact on wildlife, which is discussed in Section, 2.4, Biological Resources.

Artificial lighting components that can contribute to skyglow include roadway/walkway lighting, security lighting, decorative and landscape lighting, building lighting (including residential, commercial, and industrial), and site lighting. Lighting of vertical surfaces such as billboards, signs, buildings, and landscaping is especially problematic, because the light is often emitted

upward into the atmosphere, resulting in uplight and ultimately increased skyglow. Areas with rural residential development would have the least lighting footprint of the developed areas because night lighting would be limited to security or ornamental lighting on houses and other structures, which would be spaced far apart. The highest lighting footprint would occur in areas with commercial or village residential development because these areas contain lighted signs, nighttime security lighting and more dwelling units with nighttime lighting. Higher density areas are more likely to contain additional sources of light, such as street lights, that are not found in the more rural areas. The most developed CPAs, which generally have the greatest lighting footprint, are Spring Valley, Valle de Oro, Lakeside, Ramona, San Dieguito, and North County Metro. Mostly rural residential and/or agricultural CPAs, or those that contain large areas of open space, such as Bonsall, Central Mountain, and the Desert, generally have a smaller lighting footprint. CPAs such as Alpine and Fallbrook, which have an established commercial town center, have a greater lighting footprint in the town center, and a lesser lighting footprint in the surrounding rural uses. Additionally, the County contains large areas of open space that would continue to provide dark skies in federal, State, and County parks and open space preserves. Under the proposed General Plan Update, existing rural and semi-rural areas would remain rural or semi-rural and higher density development would be located in areas that already contain higher intensity development. The land uses proposed in the General Plan Update would be consistent with existing land uses throughout the County; however, any new development would have the potential to result in a new source of light.

Of particular concern are the land uses in closest proximity to the Palomar Mountain and Mount Laguna Observatories. Increasing skyglow from light pollution places severe constraints on the ability of astronomers to observe fainter objects, regardless of filtering or enhanced techniques. For example, if the sky brightness increases by a factor of two, the exposure time must be doubled to obtain an accurate answer. In general, as sky brightness increases, the reduced observing time restricts one's ability to observe as many objects, forcing the observatories to limit their research projects to fewer kinds of objects and only to brighter celestial (natural) objects (Etzel 2002). Figure 2.1-8 shows the 15 mile buffer around each observatory, referred to as Zone A, which is the area most critical for light pollution to be minimized. A light source at a one mile distance has 1,600 times the impact on an observatory as an equivalent light source at 40 miles distance; therefore, land uses in closer to proximity to the observatories have a greater impact on their use than those farther away.

As shown in Table 2.1-3, 771,442 acres are included within Zone A. Under the General Plan Update, approximately 235,046 acres within Zone A are proposed for land uses that would have the potential to include night lighting, including 12,008 residential units. This total includes all land uses, with the exception tribal land and national forests and State parks, where the General Plan Update does not proposed land uses, and open space. The majority, approximately 72 percent, of these acres are designated for rural development, which would have a smaller lighting footprint than higher density development such as village residential land uses. Semi-rural residential uses, which also have a relatively small lighting footprint, would make up 21 percent of the land uses within Zone A. The remaining seven percent of land uses would consist of public/semi-public facilities, village residential, commercial, industrial, and office professional land uses.

The CPAs and Subregions in Zone A around Palomar Mountain Observatory are the North Mountain Subregion, Rainbow CPA, Fallbrook CPA, Valley Center CPA, North County Metro Subregion, and Pala/Pauma Subregion. Zone A currently contains large areas of open space, including the Cleveland National Forest, that help minimize light pollution. As discussed above,

land uses in Zone A would be primarily rural (see Table 2.1-3). Some higher intensity residential and commercial development would be accommodated in the Pauma and Valley Center town centers. Therefore, although the General Plan Update would maintain the generally rural land uses in this region and maintain open space, new development, especially in the two town centers, would have the potential to result in new sources of light within Zone A.

CPAs and Subregions in Zone A for Mount Laguna Observatory are Mountain Empire Subregion, Desert Subregion, Central Mountain Subregion, Alpine CPA, Julian CPA, and Jamul/Dulzura CPA. This Zone A also contains a large amount of open space, including the Anza-Borrego Desert State Park, Cuyamaca Rancho State Park, and Cleveland National Forest. As shown in Table 2.1-3, development accommodated within Mount Laguna's Zone A would be generally rural. However, small semi-rural town centers in the Mountain Empire Subregion and the Descanso and Pine Valley communities would accommodate commercial, industrial and higher density residential uses. Similar to the Zone A for Palomar Mountain, the proposed General Plan Update would maintain the existing rural land uses and open space areas in this region; however, new higher density development in the town centers would have the potential to result in new sources of light within Zone A. Additionally, increases in skyglow outside of Zone A would also have the potential to impact to the observatories because they can be impacted by light at a great distance away. For example, the Palomar Observatory can detect the striking of a match at a point as far away as San Francisco (DPLU 2007r).

New sources of light would have the potential to also result in light trespass, which is a result of spill light shining in undesirable locations, such as a neighbor's backyard or bedroom window. Spill light is light cast beyond the parameters of useful light or the intended area to be lit, and would have the potential to be a nuisance or hazard to neighboring uses. Typical examples include streetlights or floodlights that are not angled or shielded correctly and invade areas on a neighbor's property that are desired to be kept darker. The General Plan Update proposes land uses that are generally consistent with existing land uses throughout the County; therefore lighting for the proposed uses would be compatible with the existing setting. However, individual developments would have the potential to result in a nuisance or hazard to surrounding uses.

Several CPAs and Subregions have identified dark skies as part of their community character, including those with a Zone A. These CPA and Subregions are the Alpine CPA, Bonsall CPA, Central Mountain Subregion, Crest/Dehesa/Harbison Canyon/Granite Hills CPA, Desert Subregion, Fallbrook CPA, Jamul/Dulzura CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, and Valley Center CPA. Of particular note is the Tierra Del Sol Observation Site within the Subregion of Mountain Empire and more specifically within the Boulevard planning area. There is an on-going effort to protect the aesthetic and scientific value of this area from light pollution. As described above in Section 2.1.3.3, Issue 3, General Plan Update goals and policies would be implemented to maintain community character, including dark sky communities.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

The Zoning Ordinance sets performance standards for glare for commercial and industrial uses in residential, commercial, and industrial zones. All commercial and industrial uses subject to these standards are required to operate in a manner that does not produce glare, which is readily detectable without instruments by the average person.

At this time, the standards for glare in the Zoning Ordinance are not proposed to change. Therefore, conformance with the Zoning Ordinance would reduce the potential for commercial and industrial development occurring under the proposed General Plan Update to result in impacts associated with glare. While the Zoning Ordinance does not set performance standards for residential uses, glare impacts from residential uses are uncommon because these types of uses do not typically include construction materials that would result in significant increases in glare. In addition, many communities have adopted design guidelines which would not allow development to result in a significant increase in glare.

The San Diego County LPC and Zoning Ordinance performance standards minimize light pollution and light trespass. The intent of the LPC is to restrict the permitted use of outdoor light fixtures emitting undesirable light into the night sky which can have a detrimental effect on astronomical research. The LPC sets restrictions on illuminations sources, shielding, and hours of operation. Any permit required by the County for work involving outdoor light fixtures must submit evidence that the proposed work will comply with the LPC. Section 6322 of the Zoning Ordinance reduces light pollution by controlling excessive or unnecessary outdoor light emissions which produce unwanted illumination of adjacent properties by restricting outdoor lighting usage. Sections 6324 and 6326 of the Zoning Ordinance establish limitations on outdoor lighting. Additionally, Section 1.10 of the County's MSCP Subarea Plan requires uses within or adjacent to MSCP Preserves to be minimized and shielded.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains Goal COS-13, which promotes the preservation of dark skies that is necessary for local observatories and to contribute to the rural character of a community, which would be implemented by Policies COS-13.1 and COS-13.2. Policy COS-13.1 restricts outdoor lighting and glare from development projects in semi-rural and rural areas in order to retain the quality of the night sky by minimizing light pollution. Policy COS-13.2 requires that development in areas surrounding the Palomar Mountain and Mount Laguna Observatories be designed to maintain dark skies to the maximum extent feasible.

**Summary**

The proposed General Plan Update would have the potential to result in increased light and glare within the County that would adversely affect day or nighttime views. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize light and glare, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact related to light and glare and specific implementation programs are identified as mitigation.

## 2.1.4 Cumulative Impacts

The geographic scope of the cumulative impact analysis for aesthetics includes the immediate vicinity of view corridors, view sheds, or scenic resources in the County as well as areas in the vicinity of existing community development and areas surrounding the two observatories.

### 2.1.4.1 Issue 1: Scenic Vistas

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to scenic vistas if in combination they would result in the obstruction, interruption, or detraction from a scenic vista. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, have general plan policies, zoning and other ordinances or regulations in place to protect scenic vistas within their jurisdictions. Cumulative projects within these jurisdictions would be required to comply with applicable regulations pertaining to scenic vistas. In addition, projects on tribal lands and in Baja California near the border would also be subject to applicable scenic resources regulations; however, these regulations may not be as strict or regularly enforced. For example, the Sunrise Powerlink Project, included in Table 1-9, Regional Energy Projects, proposes the construction of new transmission lines through the Desert Subregion which would have the potential to detract from or obstruct scenic vistas in the desert landscape. Development on tribal lands within the County also has the potential to result in the impacts to scenic vistas. For example, as shown in Table 1-12, Projects on Tribal Lands in San Diego County, a new casino, hotel, concert venue, and theatre are proposed on the Viejas Reservation in the Alpine CPA. Development on this reservation would have the potential to obstruct, interrupt, or detract from the public view of Viejas Mountain and scenic ridgelines in the Alpine CPA. Therefore, the cumulative projects in the region would have the potential to result in a significant cumulative impact related to scenic vistas.

As described above in Section 2.1.4.1, Issue 1: Scenic Vistas, the land use designations proposed in the General Plan Update would have the potential to result in the obstruction, interruption, or detraction of a scenic vista as a result of future development activity. In combination with other cumulative projects, the proposed project would have the potential to result in a significant cumulative impact and mitigation would be required.

### 2.1.4.2 Issue 2: Scenic Resources

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to scenic resources if in combination they would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of a neighborhood, community, State scenic highway, or localized area, such as a landmark (designated), historic resource, trees, or rock outcropping. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, have general plan policies, zoning, and other ordinances and regulations in place to protect scenic resources within their jurisdictions. Cumulative projects within these jurisdictions would be subject to applicable regulations pertaining to scenic resources. Projects in Mexico or on tribal lands would be required to comply with applicable scenic resources regulations; however, these regulations may not be strict or regularly enforced. For example, tribal lands in the Pala/Pauma Valley Subregion provide areas of open space that are considered scenic resources to this planning area. The proposed casino and hotel on the La Jolla Reservation, included in Table 1-12, Projects on Tribal Lands in San Diego County, would have the potential to obstruct the scenic open space of this area with the construction of buildings associated with the casino and hotel. Therefore, the cumulative projects in the region would have the potential to result in a significant cumulative impact related to scenic resources.

As described above in Section 2.1.4.2, Issue 2: Scenic Resources, implementation of the proposed General Plan Update would have the potential to remove or change a feature that contributes to the valued visual character or image of the neighborhood, community, State Scenic Highway, or localized area. In combination with other cumulative projects, the proposed project would have the potential to result in a significant cumulative impact and mitigation would be required.

### *2.1.4.3 Issue 3: Visual Character or Quality*

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to visual character or quality if, in combination, they would substantially degrade the existing visual character or quality of the site and its surroundings by introducing features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, have general plan policies, zoning ordinances, other ordinances, and additional regulations/policies such as design guidelines in place to protect visual character and quality within their jurisdictions. Cumulative projects within these jurisdictions would be subject to the applicable regulations pertaining to visual character and quality. However, a cumulative impact to community character may still occur from projects already in process in the County that would not be consistent with the General Plan Update. For example, several proposed cumulative projects listed in Table 1-11, Projects Not Included in the Proposed General Plan Update Land Use Map, would have the potential to result in an impact to existing community character because the proposed projects are larger developments than those that currently exist surrounding the project sites and have the potential to transform the surrounding community. Examples of these projects include Warner Ranch in the Pala/Pauma Valley Subregion, Campus Park in the Fallbrook CPA, Star Ranch in Campo, and Harmony Grove Meadows in North County Metro Subregion. The Warner Ranch, Star Ranch, and Harmony Grove Meadows projects all propose large residential developments in relatively undeveloped areas of the unincorporated County and have the potential to impact the rural character of the project areas. The Campus Park projects in Fallbrook, which are all slightly different than the proposed project, would result in industrial, commercial, and residential land uses in an area that is currently mostly undeveloped and would substantially change the character of this area. Additionally, projects in Mexico or on tribal lands may not be subject to regulations protecting scenic resources, or they may not be as strict or regularly enforced. Therefore, the cumulative projects in the region would have the potential to result in a significant cumulative impact related to visual character or quality.

As described above in Section 2.1.4.3, Issue 3: Visual Character or Quality, implementation of the proposed General Plan Update would have the potential to degrade the existing visual character or quality of a community. In combination with other cumulative projects, the proposed project would have the potential to result in a significant cumulative impact and mitigation would be required.

### *2.1.4.4 Issue 4: Light or Glare*

The construction and operation of cumulative projects located in the San Diego region would have the potential to result in a new source of glare from new development or redevelopment that requires night lighting, such as security lighting in commercial areas, or is constructed with materials that would result in glare, such as expanses of glass on office buildings. Impacts from

glare are generally localized and not cumulative in nature; therefore, a significant cumulative impact related to glare would not occur. However, any new sources of nighttime light pollution in the San Diego region would result in a potential lighting impact to the Palomar Mountain and Mount Laguna Observatories. New sources of lighting would be created from development of the proposed new and expanded casino projects identified in Table 1-12, Projects on Tribal Lands in San Diego County, which would be in operation at night and generally include decorative and security lighting. For example, the Campo Reservation proposes an entertainment hall and a 42,800 SF gaming area that would require lighting at night for operation, decoration, and advertising. Despite lighting ordinances and other regulations pertaining to night lighting and mitigation measures that would reduce light pollution on a project by project basis, the combined effect of all cumulative projects in the San Diego region would be a cumulative increase in light pollution. Therefore, the cumulative projects in the region would have the potential to result in a significant cumulative impact associated with nighttime lighting. As discussed above in Section 2.1.3.4, Issue 4: Light or Glare, the General Plan Update would have the potential to result in substantial new sources of nighttime light. Therefore, in combination with other cumulative projects, the proposed project would result in a potentially significant cumulative impact associated with night lighting.

## 2.1.5 Significance of Impact Prior to Mitigation

The proposed General Plan Update would result in potentially significant direct and cumulative impacts to scenic vistas, scenic resources, visual character or quality, and light and glare.

## 2.1.6 Mitigation

### *2.1.6.1 Issue 1: Scenic Vistas*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts to scenic vistas to below a significant level.

**General Plan Update Policies**

**Policy LU-6.2**: **Reducing Development Pressures.** Assign lowest density or lowest intensity land use designations to areas with sensitive natural resources.

**Policy LU-6.3: Conservation Oriented Project Design.** Support conservation-oriented project design. This can be achieved with mechanisms such as, but not limited to, Specific Plans, lot area averaging, and reductions in lot size with corresponding requirements for preserved open space (Planned Residential Developments). Projects that rely on lot size reductions should incorporate specific design techniques, perimeter lot sizes, or buffers, to achieve compatibility with community character. [See applicable community plan for possible relevant policies.]

**Policy LU-6.4: Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [See applicable community plan for possible relevant policies.]

**Policy LU-6.6: Integration of Natural Features into Project Design.** Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.

**Policy LU-6.7: Open Space Network.** Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

**Policy LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

**Policy LU-10.1: Residential Connectivity.** Require residential development in Semi-Rural areas to be integrated with existing neighborhoods by providing connected and continuous street, pathway/trail, and recreational open space networks.

**Policy LU-10.2: Development Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.

**Policy M-2.3: Environmentally Sensitive Road Design.** Locate and design public and private roads to minimize impacts to significant biological and other environmental and visual resources. Avoid road alignments through floodplains to minimize impacts on floodplain habitats and limit the need for constructing flood control measures. Design new roads to maintain wildlife movement and retrofit existing roads for that purpose. Utilize fencing to reduce road kill and to direct animals to under crossings.

**Policy COS-11.1: Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

**Policy COS-11.2: Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

**Policy COS-11.3: Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning
- Integration of natural features into the project
- Appropriate scale, materials, and design to complement the surrounding natural landscape
- Minimal disturbance of topography

- Clustering of development so as to preserve a balance of open space vistas, natural features, and community character
- Creation of contiguous open space networks

**Policy COS-11.4: Collaboration with Agencies and Jurisdictions.** Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to protect scenic resources and corridors that extend beyond the County's land use authority, but are important to the welfare of County residents.

**Policy COS-11.5: Collaboration with Private and Public Agencies.** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.

**Policy COS-11.6: Billboards.** Prohibit new billboards and other forms of large-scale advertising and signage within scenic corridors. Encourage the removal of existing billboards and other forms of large-scale advertising and signage along State and County scenic highway corridors.

**Policy COS-11.7: Underground Utilities.** Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.

**Mitigation Measures**

**Aes-1.1** Adopt the General Plan Regional Category Map and Land Use Maps which locate land uses of less density or intensity on lands that contribute to scenic vistas.

**Aes-1.2** Protect sensitive biological habitats and species through regulations that require avoidance and mitigation of impacts. Existing programs include the County MSCP and associated BMOs, RPO, and CEQA Guidelines. While protecting biological resources, these programs also preserve natural open space that contributes to the quality of many of the County's scenic vistas.

**Aes-1.3** Amend community plans with improved vision and community character statements to ensure that new development reflects the character and visions for each individual unincorporated community. Community plans are used to review development projects (including General Plan Amendments). These reviews are implemented by State law, County policy and procedures, the Subdivision Ordinance, Zoning Ordinance findings for certain permits, CEQA compliance, etc. The Community Plans also serve as the foundation for more detailed implementing regulations such as design review guidelines, Zoning box regulations, etc. Community Plans are also used for the interjurisdictional review and coordination on project conducted by other agencies.

**Aes-1.4** Revise the Design Review process to streamline the process, improve consistency in implementation, and update design criteria as necessary. Current components of that process include Special Area Designators, Design Review Guidelines, and the Site Plan review and approval process.

**Aes-1.5** Create a Conservation Subdivision Program that facilitates conservation-oriented project design.

**Aes-1.6** Require that project approvals with significant potential to adversely affect the scenic quality of a community require community review and specific findings of community compatibility. Examples can be found in the Zoning Ordinance with the numerous special uses or exceptions allowed pursuant to Administrative and Use Permits, and Site Plans. This practice has been proven useful for reducing impacts to aesthetic resources and their usefulness will increase as community plans and design guideline are updated pursuant to Aes-1.3 and Aes-1.4.

**Aes-1.7** Develop and implement programs and regulations that preserve agricultural lands (such as the County's CEQA guidelines and the Farm Program). Most existing agricultural lands are key components of scenic vistas and community character and the preservation of these resources is critical to minimizing impacts to these resources.

**Aes-1.8** Continue to develop and implement programs and regulations that minimize landform alteration and preserve ridgelines and steep slopes where appropriate. Examples include the County's Grading Ordinance, RPO, and CEQA Guidelines.

**Aes-1.9** Work with communities and other stakeholders to identify key scenic vistas, viewsheds of County scenic road and highways, and other areas of specific scenic value. Apply Resource Conservation Area designations or other special area designators, guidelines, and tools to guide future development of parcels within these viewsheds to avoid impacts to the scenic vistas.

**Aes-1.10** Participate in regional planning and planning by agencies operating within or adjacent to the County to the extent practicable. This includes participation in SANDAG and other regional planning forums, reviewing and commenting on planning and environmental documents issued by other agencies, and ongoing collaboration with Native American tribes and adjacent jurisdictions.

**Aes-1.11** Implement the Wireless Communications Ordinance and BOS Policies I-92 and J-17 to encourage the undergrounding of utilities.

### *2.1.6.2 Issue 2: Scenic Resources*

The General Plan Update policies and mitigation measures identified above in Section 2.1.6.1, Issue 1: Scenic Vistas, would also mitigate direct and cumulative impacts to scenic resources to below a significant level.

### *2.1.6.3 Issue 3: Visual Character or Quality*

The proposed General Plan Update would allow increased land use densities in some areas of the unincorporated County that would have the potential to conflict with or alter the character of existing communities. General Plan Update policies and mitigation measures (described below), have been identified that would minimize the potentially significant impact to visual character and quality. Some mitigation measures have been identified that would reduce impacts associated with visual character or quality to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan Update policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts to visual character or quality to below a level of significance. However, the County has determined that these measures would be infeasible, as described below. Therefore, the following mitigation measures would not be implemented.

- Require revised goals and policies to be prepared and incorporated into community plans that would severely limit the potential for development growth in order to maintain the existing visual character or quality of each community. Restrictions on the type or amount of development within a community would conflict with areas identified for increased growth under the General Plan Update. Therefore, this measure would be infeasible because community plans are required to be consistent with the adopted General Plan. The measure would also conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

- Comprehensively expand the Zoning Ordinance to specifically dictate the exact development type and design allowed in the various areas of the County to avoid impacts to community character. This measure would be the equivalent of preparing detailed land development master plans for the entire County and would be infeasible because of the extent and diversity of communities that exist within the County. While the County intends to improve the Zoning Ordinance and associated Design Review Guidelines for some areas, as well as prepare town center plans where appropriate, comprehensive coverage of all unincorporated areas in this manner is not feasible.

- Approve only development that is comparable in size, scope, and use as existing development in order to avoid impacts to the visual character and quality of the County's communities. This measure would be infeasible because it would result in restrictions on future development in areas identified for increased growth in the General Plan Update and/or areas where existing land uses are not the same as the land uses proposed by the General Plan Update. Therefore, this measure would also conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable share of regional growth.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with visual character or quality as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with visual character or quality, but not to below a significant level.

**Policy LU-1.4: Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding
- Potential Village development would be accommodated by the General Plan road network
- Public facilities and services can support the expansion without a reduction of services to other County residents
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area

**Policy LU-2.1: Community Plans.** Maintain updated community plans, as part of the General Plan, to guide development to reflect the character and vision for each individual unincorporated community, consistent with the General Plan.

**Policy LU-2.2: Relationship of Community Plans to the General Plan.** Community Plans are part of the General Plan. These plans focus on a particular region or community within the overall General Plan area. They are meant to refine the policies of the General Plan as they apply to a smaller geographic region and provide a forum for resolving local conflicts. As legally required by State law, Community Plans must be internally consistent with General Plan goals and policies of which they are a part. They cannot undermine the policies of the General Plan. Community Plans are subject to adoption, review and amendment by the Board of Supervisors in the same manner as the General Plan.

**Policy LU-2.3: Development Densities and Lot Sizes.** Assign densities and minimum lot sizes in a manner that is compatible with the character of each unincorporated community.

**Policy LU-2.5: Greenbelts to Define Communities.** Identify and maintain greenbelts between communities to reinforce the identity of individual communities.

**Policy LU-4.1: Regional Planning.** Participate in regional planning to ensure that the unique communities, assets, and challenges of the unincorporated lands are appropriately addressed with the implementation of the planning principles and land use requirements of SB 375.

**Policy LU-4.2: Review of Impacts of Projects in Adjoining Jurisdictions.** Review, comment, and coordinate when appropriate on plans, projects, and proposals of overlapping or neighboring agencies to ensure compatibility with the County's General Plan, and ensure that adjacent communities are not adversely impacted.

**Policy LU-4.3: Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

**Policy LU-4.4: Development Compatibility with Military Facilities.** Ensure compatibility of new development with the current and planned mission and operations of U.S. government military installations.

**Policy LU-11.2: Compatibility with Community Character.** Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Policy M-10.6: On-Street Parking.** Minimize on-street vehicular parking outside Villages and Rural Villages where on-street parking is not needed, to reduce the width of paved shoulders and provide an opportunity for bicycle lanes to retain rural character in low-intensity areas. Where on-street parking occurs outside Villages and Rural Villages, require the design to be consistent with the rural character. [See applicable community plan for possible relevant policies.]

**Policy H-2.1: Development That Respects Community Character.** Require that development in existing residential neighborhoods be well designed so as not to degrade or detract from the character of surrounding development consistent with the Land Use Element. [See applicable community plan for possible relevant policies.]

**Mitigation Measures**

The mitigation measures listed under Section 2.1.6.1, Issue 1: Scenic Vistas, are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measure would also contribute to a reduced impact to visual character or quality; however, impacts would not be reduced to below a significant level.

**Aes-3.1** Improve upon the County road standards or other right of way design guidelines to provide standards related to road design, parking, landscaping, and elements of the public realm that to are critical to the character of a community.

**Aes-3.2** Implement existing and prepare new community right-of-way development standards, as appropriate, that supplement the County road standards in order to recognize the unique constraints and character of different communities.

### *2.1.6.4 Issue 4: Light or Glare*

The proposed General Plan Update would allow for additional growth in the County that would contribute new light sources with the potential to impact the County's dark skies. General Plan Update policies and mitigation measures (described further below), have been identified that would minimize these impacts. Some mitigation measures have been identified that would reduce dark-skies impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan Update policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measure (and variations of this measure) was considered in attempting to reduce impacts associated with light to below a level of significance. However, the County has determined that this measure would be infeasible to implement for the reasons below; therefore, it would not be implemented.

- Expand the LPC Zone A designation to encompass all of the unincorporated areas and create more stringent standards, including, but not limited to:

  - Nighttime lighting curfew of 10:00 p.m. for certain areas
  - Prohibit development requiring any night lighting within certain areas

  This measure would result in restrictions on future development in areas identified for increased growth in the General Plan Update because night lighting is required for safety or other reasons for development accommodated within Zone A areas such as commercial or residential development. The resulting restrictions could pose safety concerns, increase development costs, and in some cases, pose restrictions so great that a particular use may not be possible. Therefore, this measure could conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of regional growth. This measure could also impede attainment of other objectives such as minimizing public costs of infrastructure and services and reinforcing the vitality and local economy of communities.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with light effects on dark skies as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with light or glare, but not to below a significant level.

**Policy COS-13.1: Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.

**Policy COS-13.2: Palomar and Mount Laguna.** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

**Policy COS-13.3: Collaboration to Retain Night Skies.** Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with light or glare, but not to below a significant level.

**Aes-4.1** Coordinate with communities and stakeholders to review light pollution controls and consider amendments or expansions to those controls as determined necessary to reduce impacts to dark skies that are important to community character.

**Aes-4.2** Maintain light and glare regulations that minimize impacts to adjacent properties, sensitive areas, community character, observatories, and dark skies. These regulations are currently found in the Light Pollution Code and Zoning Ordinance. Additional reviews are implemented on discretionary projects in accordance with CEQA and the County's CEQA guidelines.

**Aes-4.3** Participate in regional planning and planning by agencies operating within or adjacent to the County to the extent practicable. This includes participation in SANDAG and other regional planning forums, reviewing and commenting on planning and environmental documents issued by other agencies, and ongoing collaboration with Native American tribes and adjacent jurisdictions.

## 2.1.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.1.7.1 Issue 1: Scenic Vistas*

Development allowed under the proposed General Plan Update would have the potential to result in the obstruction, interruption, or detraction of a scenic vista. Therefore, impacts would be potentially significant. Additionally, the proposed project would result in a potentially significant cumulative impact. However, the proposed General Plan Update policies and mitigation measures, in combination with the RPO and County Zoning Ordinance, would mitigate direct and cumulative impacts to scenic vistas to below a significant level.

### *2.1.7.2 Issue 2: Scenic Resources*

Implementation of the proposed General Plan Update would allow development to occur that would have the potential to impact scenic vistas through the removal or substantial adverse change of features that contribute to the valued visual character or image of a neighborhood, community, State Scenic Highway, or localized area. Therefore, the proposed General Plan Update would result in a potentially significant impact to scenic resources. Additionally, the proposed project would result in a potentially significant cumulative impact. However, the goals and policies proposed in the General Plan Update, and mitigation measures, in combination with other applicable regulations including the County RPO and San Diego County Zoning Ordinance, would mitigate project-related direct and cumulative impacts to scenic resources to below a level of significance.

### *2.1.7.3 Issue 3: Visual Character or Quality*

Implementation of the General Plan Update would allow increased development densities to occur in some areas which would result in the potential degradation of the existing visual character or quality of a community. Therefore, the proposed project would result in a potentially significant impact to visual character and quality. Additionally, the proposed project would result in a potentially significant cumulative impact. The proposed General Plan Update policies and mitigation measures would reduce direct and cumulative impacts to visual character and quality, but not to below a level of significance. Impacts would remain significant and unavoidable because the character of some communities will change as they continue to grow regardless of the amount of zoning regulations and design review that is imposed.

### *2.1.7.4 Issue 4: Light or Glare*

The proposed General Plan Update would have the potential to result in increased light and glare within the County that would adversely affect day or nighttime views. Therefore, impacts would be potentially significant. Additionally, the proposed project would result in a potentially significant cumulative impact. General Plan Update policies and mitigation measures, in combination with other applicable regulations including the LPC and the San Diego County Zoning Ordinance, would lessen impacts to nighttime lighting, but not to a below a level of significance. Impacts would remain significant and unavoidable.

## Table 2.1-1. Eligible State Scenic Highways in Unincorporated San Diego County

| Highway | Segment |
|---|---|
| I-5 | City of Oceanside to Orange County line |
| I-8 | City of El Cajon to Imperial County line |
| I-15 | North of SR-76 to Riverside County line |
| SR-76 | City of Oceanside to SR-79 in North Mountain |
| SR-78[(1)] | SR-79 near Santa Ysabel to SR-86 near Julian |
| SR-79 | I-8 to SR-78 near Julian, and SR-78 near Santa Ysabel to Riverside County line |
| SR-94 | SR-125 (Spring Valley) to I-8 (Boulevard) |

(1) Approximately 18.2 miles of SR 78 along the Anza Borrego Desert State Park has been officially designated as a State Scenic Highway. Approximately 5 miles of road west of the park and 5 miles of road east of the park has not been officially designated but remains eligible.

Source: DPLU 2007b

## Table 2.1-2. County Scenic Highway System Priority List

| Highway | Segment |
|---|---|
| **First Priority Scenic Routes** | |
| SR-76 | El Camino Real east to I-15, except portions within City of Oceanside |
| SR-79 | I-8 to intersection of Sunrise Highway (S-1) |
| Bonita Road, San Miguel, Guajolote, and Sweetwater River Roads | I-805 to SR-94 |
| **Second Priority Scenic Routes** | |
| N. Santa Fe Avenue and Osborne Street | Oceanside City limit east to Vista Way |
| Gird, Reche, Live Oak Park, and Mission Roads | SR-76 to I-15 |
| Tecate Road | U.S./Mexico international border north to SR-94 |
| SR-76 | Interstate 15 east to SR-79 |
| Via de la Valle, Paseo Delicias, Del Dios Highway (S-6) | Highway 101 north to Via Rancho Parkway |
| I-8 | El Cajon City limit to SR-79 |
| Lake Wohlford Road | Valley Center Road east to Guejito Road |
| SR-78 | Via Rancho Parkway to SR-79, except portions within City of San Diego |
| Willows and El Monte Roads | SR-67 to the southern end of El Capitan Reservoir |
| Proctor Valley Road | Otay Lakes Road to SR-94 |
| SR-79 and Sunrise Highway (S-1) | Wynola Road south to Kitchen Creek Road |
| Potrero Valley Road | SR-94 to Potrero County Park |
| Lake Morena Drive | Buckman Springs Road north to Morena Lake |
| Oak Drive | Lake Morena Drive north to Buckman Springs Road |

**Table 2.1-2 (Continued)**

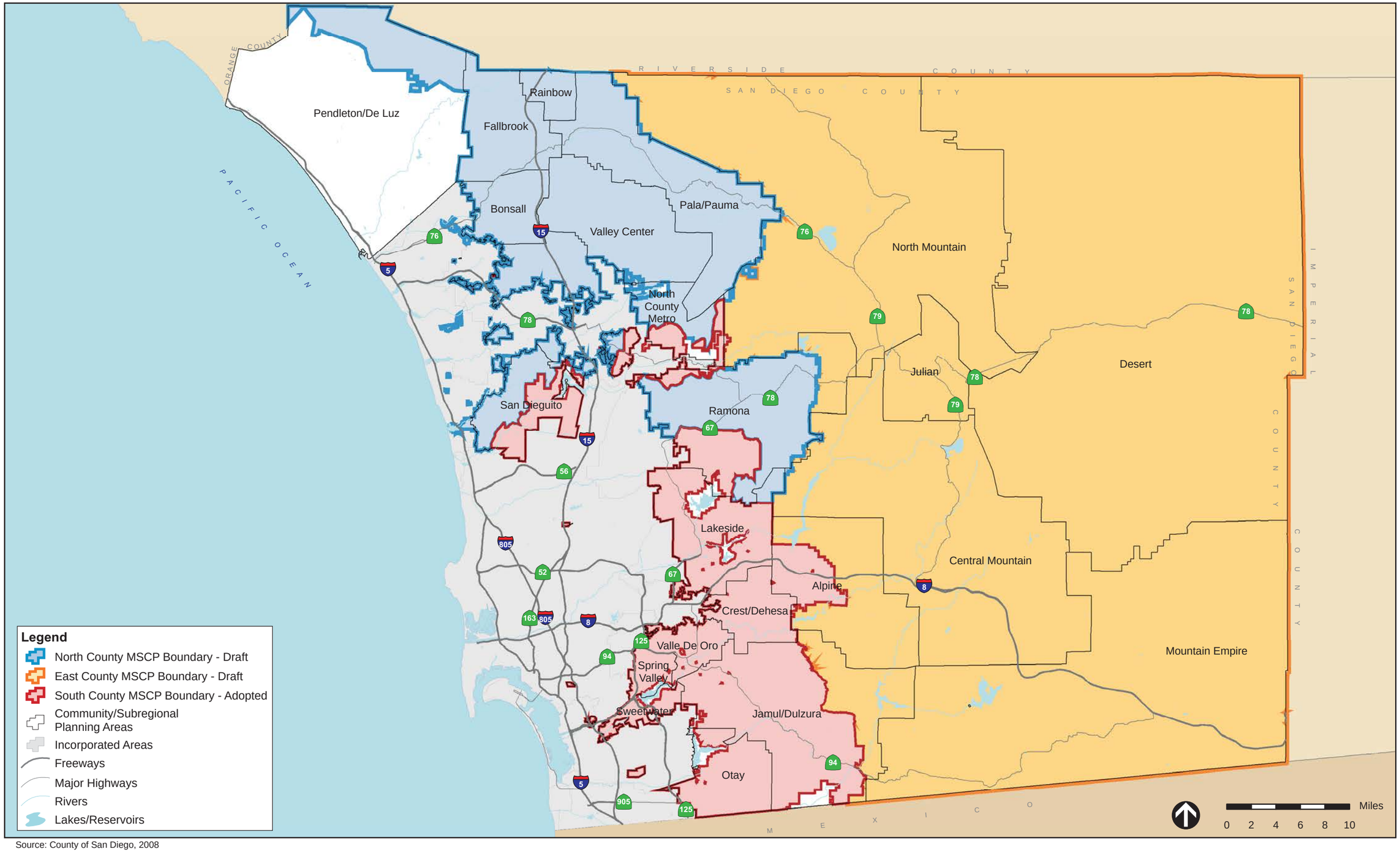
| Highway | Segment |
|---|---|
| **Third Priority Scenic Routes** | |
| I-15 | SR-76 north to Riverside County line |
| Mission and Green Valley Roads | SR-76, north and east to Gird Road |
| Otay Lakes Road | Proctor Valley Road east to SR-94 |
| Honey Springs Road | SR-94 to Lyons Valley Road |
| Vista Way, Oransby Street, Gopher Canyon Road, Old Castle Road, Lilac Road, and Valley Center Road | Vista City limit to SR-76 |
| Lake Wohlford Road | Guejito Road north to Valley Center Road |
| Twin Oaks Valley Road | Gopher Canyon Road to San Marcos City limit |
| Via Rancho Parkway | Del Dios Highway to SR-78, except in the City of Escondido and City of San Diego |
| Bear Valley Road and SR-78 | Valley Center Road to Via Rancho Parkway |
| SR-79 | Riverside County line to Anza Expressway (SR-78) |
| SR-78 | Wynola Road to western boundary of Anza-Borrego Desert State Park |
| SR-78 | Eastern boundary of Anza-Borrego State Park to Imperial County line |
| Old Overland Stage Route (S-2) | Imperial County line north to SR-78 |
| Recreation Park Road | I-8 north to SR-79 |
| San Felipe Road, Montezuma Valley Road, Hoberg Road and Truckhaven Trail (S-22) | SR-79 east to Imperial County line |
| I-5 | Oceanside City limit north to Orange County line |
| San Vicente Road, Conejos Valley Road, Goudie Road, Boulder Creek Road, and Viejas Boulevard | Anza Expressway (SR-78) to SR-79 |
| Old SR-79 loop to Warner Springs | SR-79 to SR-79 |
| I-8 | SR-79 east to Imperial County line |
| Pomerado Road and Beeler Canyon Road | San Diego City limit to SR-125 |
| SR-94 | SR-125 to I-8 |
| Lyons Valley Road, Pine Creek Trail, Morena Stokes Valley Road, and Buckman Springs Road | SR-94 to Oak Drive |
| Buckman Springs Road | Lake Morena Drive to SR-94 |
| Japatul Road | Lyons Valley Road to I-8 |
| Highland Valley Road | City of San Diego limit east to Lake Hodges |
| El Monte Park Road | Southern end of El Capitan Reservoir to I-8 |
| Harvest Road and Otay Freeway | U.S./Mexico international border to Proctor Valley Road |
| Canfield Road, Divide Drive and Oak Grove Road | SR-76 to SR-79 |

Source: DPLU 2007b

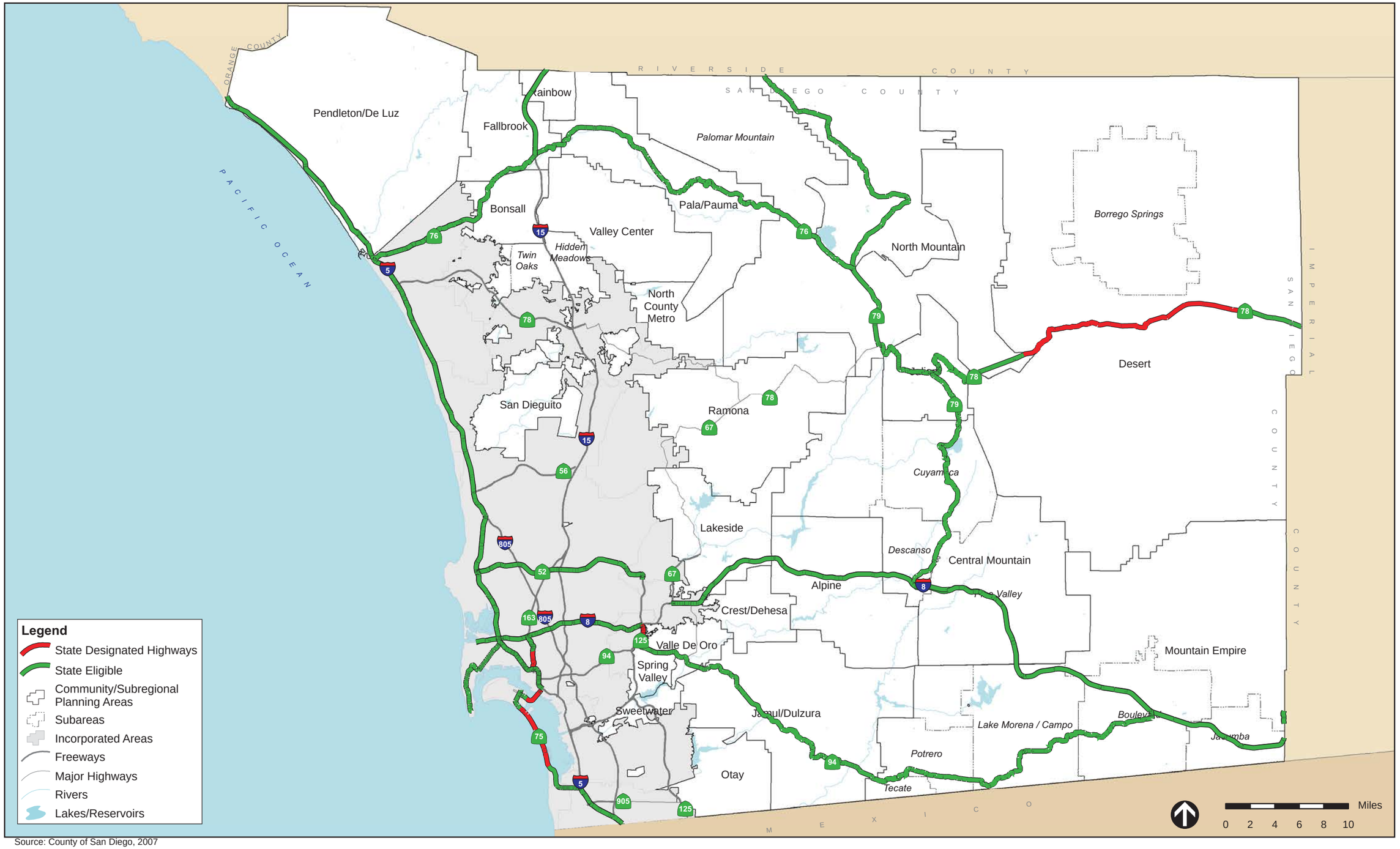
## Table 2.1-3. Proposed Land Uses within Light Pollution Zone A (in acres)

| Land Use Designation | Zone A - Mount Laguna Observatory | Zone A - Palomar Mountain Observatory |
|---|---|---|
| Commercial | 262 | 292 |
| Industrial | 8 | 87 |
| Military Installations | 0 | 0 |
| National Forest and State Parks | 255,986 | 82,487 |
| Office Professional | 5 | 15 |
| Open Space | 79,754 | 52,221 |
| Public/Semi-Public Facilities | 3,427 | 2,678 |
| Rural Lands | 77,533 | 94,668 |
| Semi-rural Residential | 7,548 | 42,172 |
| Specific Planning Area | 0 | 4,121 |
| Tribal Lands | 28,136 | 37,793 |
| Village Core Mixed Use | 0 | 55 |
| Village Residential | 904 | 1,270 |
| **Total** | **453,563** | **317,859** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008




Source: County of San Diego, 2008




Source: County of San Diego, 2007

**SAN DIEGO COUNTY STATE SCENIC HIGHWAYS** **FIGURE 2.1-2**




Photo 1 - Representative view of sparsely development ridgelines in Alpine.



Photo 2 - Example of a panoramic view in Bonsall of agriculture, estate lots, scenic valleys, and distant hills.

SOURCE: PBS&J, 2008

**PHOTO LOCATIONS 1 AND 2** **FIGURE 2.1-3**



Photo 3 - Example of rural development surrounded by open space in Central Mountain.



Photo 4 - Representative view of rugged topography in Dehesa.

SOURCE: PBS&J, 2008

**PHOTO LOCATIONS 3 AND 4** **FIGURE 2.1-4**




Photo 5 - Representative view of the Julian Historic District.




Photo 6 - Representative view of Lindo Lake County Park in Lakeside.

SOURCE: PBS&J, 2008

**PHOTO LOCATIONS 5 AND 6** **FIGURE 2.1-5**

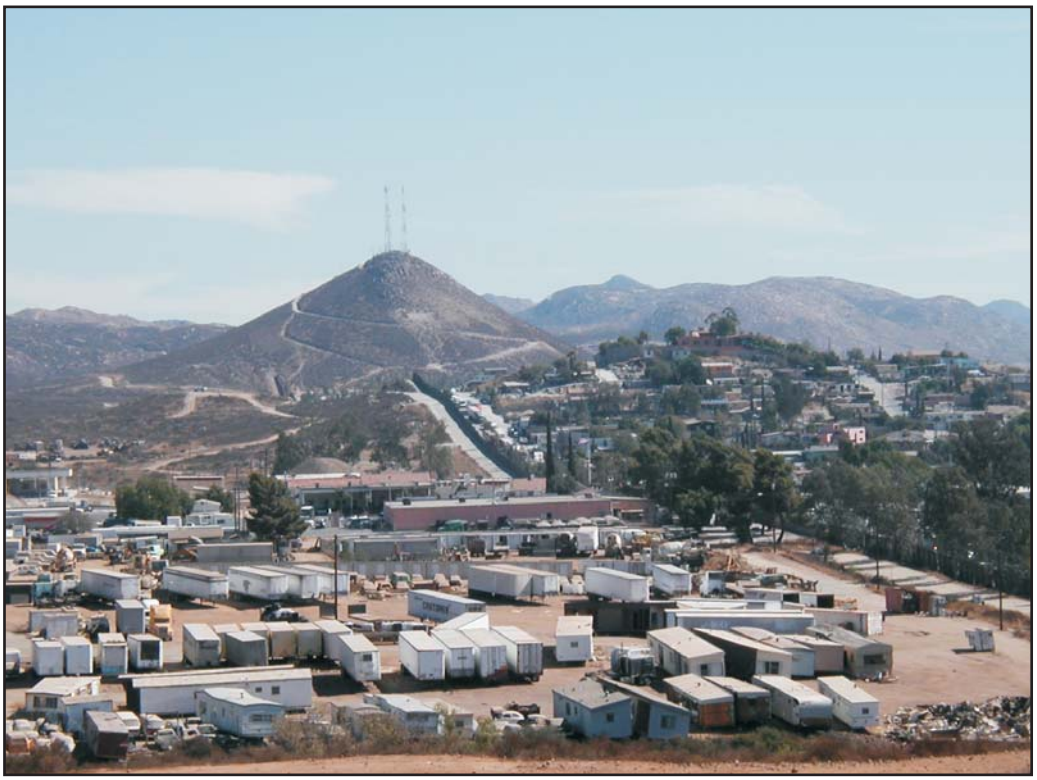


Photo 7 - View of industrial development in Tecate along the U.S./Mexico international border.



Photo 8 - Representative view of estate development in San Dieguito.

SOURCE: PBS&J, 2008

**PHOTO LOCATIONS 7 AND 8** **FIGURE 2.1-6**



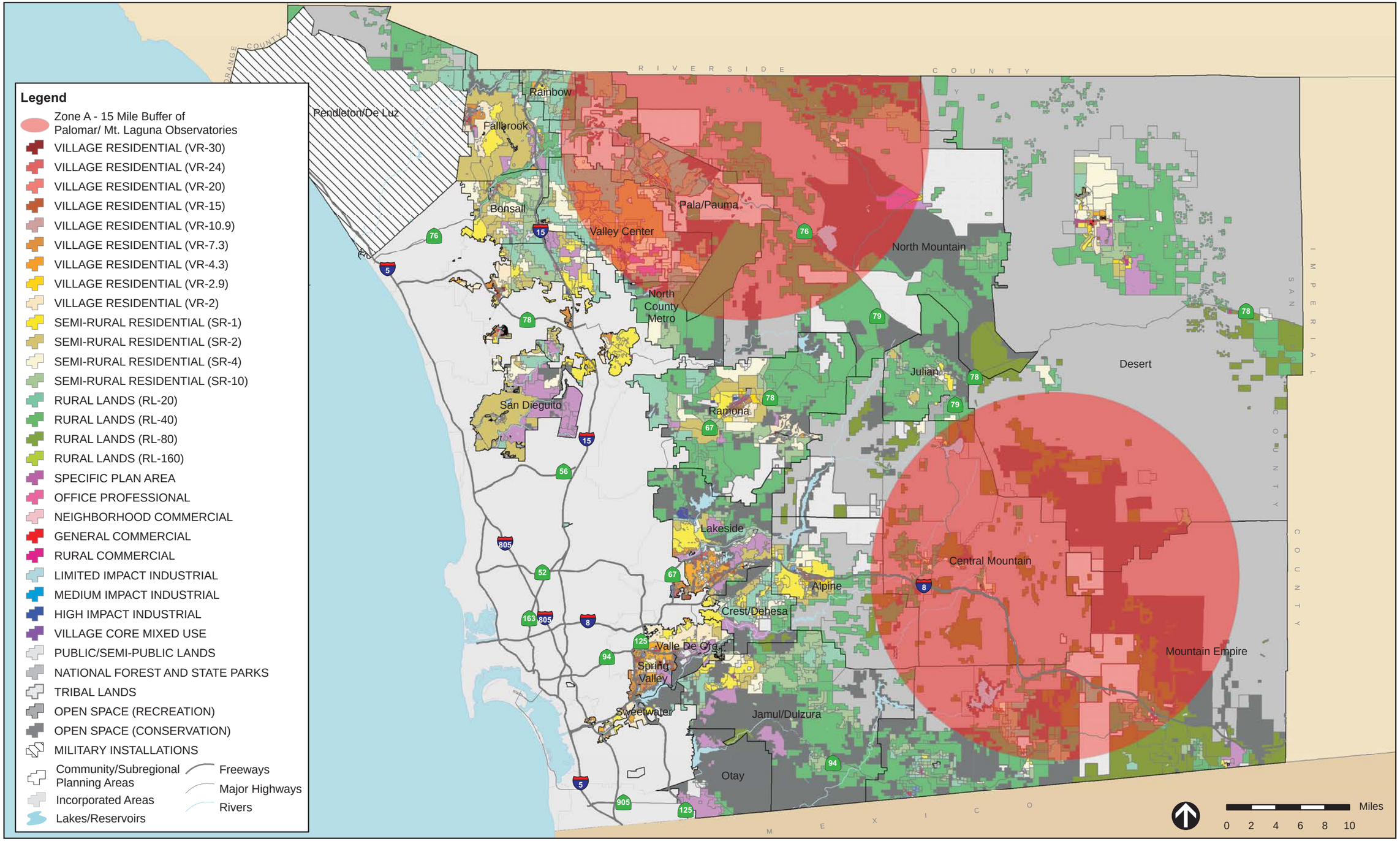

Photo 9 - Representative view of residential development in Spring Valley.



Photo 10 - Representative view of agricultural uses scattered throughout Valley Center.

SOURCE: PBS&J, 2008

**PHOTO LOCATIONS 9 AND 10** **FIGURE 2.1-7**




Source: County of San Diego, 2008

**ZONE A SURROUNDING PALOMAR AND MOUNT LAGUNA OBSERVATORIES** **FIGURE 2.1-8**

# 2.2 Agricultural Resources

This section of the EIR describes and evaluates the potential impacts to agricultural resources that could result from implementation of the proposed General Plan Update. This section is based on the information provided in the County of San Diego Guidelines for Determining Significance, Agricultural Resources (DPLU 2007f), the County of San Diego General Plan Conservation and Open Space Element Background Report (DPLU 2007b), the County of San Diego Department of Agriculture, Weights and Measures (AWM) 2007 Crop Statistics and Annual Report (AWM 2008), and additional resources as cited throughout the section.

A summary of the impacts to agricultural resources identified in Section 2.2.3 is provided below.

**Agricultural Resources Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Conversion of Agricultural Resources | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 2 | Land Use Conflicts | Potentially Significant | Less Than Significant | Less Than Significant |
| 3 | Indirect Conversion of Agricultural Resources | Potentially Significant | Potentially Significant | Significant and Unavoidable |

## 2.2.1 Existing Conditions

The following section is divided into six subsections that examine different aspects of agricultural resources within the County. These discussions encompass the County's agricultural lands, agricultural soils, crops and commodities, agricultural economy, agricultural trends, and agricultural land preservation strategies.

### *2.2.1.1 Agricultural Resources*

CEQA Guidelines reference maps produced by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) as a resource that may be used to identify agricultural resources. The FMMP uses a 10 acre minimum mapping unit to determine farmland resources. While this standard would be appropriate in other areas of the State with larger farms, it does not account for the numerous smaller farms located throughout San Diego County. Sixty-eight percent of San Diego County's farms are between one and nine acres, with an average farm size of four acres. Therefore, FMMP data does not capture a significant portion of the agricultural resources located within the County. For this reason, the County has broadened the definition of an agricultural resource to include any land with an active agricultural operation, or any site with a history of agricultural production based on aerial photography or other data sources identifying agricultural land uses. The broadened definition allows the County to map smaller farms that the State FMMP would overlook due to the 10 acre minimum threshold. Below is a brief description of FMMP-identified agricultural lands and County-identified agricultural resources.

**FMMP Identified Agricultural Lands**

FMMP produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status, with the best quality land labeled Prime Farmland. FMMP maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. Table 2.2-1 lists FMMP farmland categories and corresponding acreages for the County. Figure 2.2-1 shows the FMMP land acreage throughout the County. Table 2.2-2 provides the definition of different agricultural land categories used in FMMP land classification. As shown in Table 2.2-1, recent FMMP agricultural and grazing land totals for San Diego County are identified at 314,032 acres. This is 93,568 acres less than the 407,600 acres of agricultural land identified by County staff and discussed below.

**County-Identified Agricultural Resources**

In order to better estimate the acreage of agricultural resources within the County, a number of agricultural data sources were considered, which identified approximately 407,600 acres of farmland within the County. Agricultural data sources used in this calculation included: FMMP data; DPLU GIS vegetation data; California Department of Water Resources land use data; Cleveland National Forest grazing allotments data; U.S. Department of Agriculture (USDA) Statistics Service data; and Agricultural Weights and Measures Commodities data. These 407,600 acres of identified agricultural resources have been categorized into one of the following two commodity categories: grazing lands or croplands. The grazing lands category includes two agricultural land use types: grazing lands and field crops. The croplands category includes three agricultural land use types: intensive agriculture, orchards and vineyards, and truck crops. Table 2.2-3 provides the location, by CPA or Subregion, and estimated acreage of agricultural resources throughout the County. Table 2.2-4 provides the definition of the different agricultural resource categories used in this analysis. Figure 2.2-2 shows the distribution of agricultural lands throughout the County.

## *2.2.1.2 Agricultural Soils*

Soils in the San Diego region are generally considered poor, with only six percent of the region's soils considered prime agricultural land, as defined in Government Code Section 51201 (The Williamson Act). Soil quality measures typically rate local soils as poor because of the County's generally steep terrain and erodible soils. Descriptions of various measures of soil quality are presented below. These classifications are based on the USDA Soil Surveys: Parts I & II (USDA 1973), and the County of San Diego Soil Interpretation Manual, Part III (DPLU 1975). The locations of prime agricultural soils in the County are identified in Figure 2.2-3.

**Land Capability Classification (LCC)**

LCC classifies soils according to their limitations when cultivated and according to the way that they respond to management practices. Class I soils have no significant limitation for raising crops. Classes VI through VIII have severe limitations, limiting or precluding their use for agriculture. Capability subclasses are also assigned by adding a small letter to the class designation. Capability subclasses include the letters *e*, *w*, *s*, or *c*. The letter *e* indicates that the main limitation is risk of erosion. The letter *w* indicates that water in or on the soil interferes with plant growth or cultivation. The letter *s* indicates that the soil is limited mainly because it is

shallow, droughty, or stony. Finally, the letter *c* is used only in some parts of the U.S. where cold or dry climates are a concern. Groupings are made according to the limitation of the soils when used to grow crops and the risk of damage to soils when they are used in agriculture. Productive agriculture in San Diego County typically occurs on soils having LCC ratings of III and IV, and a significant number of local soils have the class designations *e* and *s* indicating limitations related to erosion and shallow soils.

**Storie Index (SI)**

SI, another traditional measure of soil quality, uses a 100 point scale to numerically express the relative degree of suitability or value of a soil for general intensive agriculture. Higher SI ratings indicate higher quality soils. The SI rating is based on several factors including profile characteristics (affecting root penetration), surface soil texture (affecting ease of tillage and capacity of soil to hold water), slope (affecting soil erosion), and other unique limiting factors of the soil such as poor drainage, high water table, salinity, and acidity. Productive agriculture in San Diego County typically occurs on soils with low SI ratings (typically in the 30 point range).

**Prime Agricultural Soils**

As discussed above, only six percent of the San Diego region's soils meet the soil quality criteria defined by the Williamson Act definition of prime agricultural land. This definition includes all land that qualifies for rating as class I or class II in the Natural Resource Conservation Service LCC ratings and land which qualifies for rating 80 through 100 in the SI, among other non-soil related criteria. The Williamson Act Program is the California regulation enabling local governments to enter into contracts with private land owners for the purpose of restricting specific parcels of land to agricultural or related open space use. In San Diego County, prime agricultural soils are sparsely scattered throughout the region and are often constrained by protected biological resources such as wetlands, which restricts their use. Because San Diego County has generally steep terrain and erodible soils, the soil quality measures of LCC and SI rate local soils as poor due to the importance of slope and erodibility in the formulas that determine these soil ratings.

**Prime Farmland and Farmland of Statewide Importance**

FMMP farmland categories are based on local soil characteristics and irrigation status, with the best quality land identified as Prime Farmland and Farmland of Statewide Importance. FMMP publishes a list of soils that meet the soil quality criteria for Prime Farmland soils and Soils of Statewide Importance. In the County, 44 local soils qualify for the Prime Farmland designation and 65 soils qualify for the Farmland of Statewide Importance designation. These soil criteria include a much broader range of soils than the prime agricultural soils identified in the Williamson Act. Approximately 70 percent of the soils that meet the Prime Farmland and Farmland of Statewide Importance soil criteria have a LCC greater than II and approximately 88 percent have SI ratings below 80.

### *2.2.1.3 Types of Crops and Commodities*

San Diego County is the most southwestern county in the state and enjoys a subtropical climate that optimizes the production of a variety of crops that would be more difficult to produce elsewhere. The County's unique topography also creates a wide variety of microclimates that

result in nearly 30 different types of vegetation communities. This diversity allows San Diego farmers to grow over 200 different agricultural commodities – from strawberries along the coast, apples in the mountain areas, to palm trees in the desert. The success of San Diego County's diverse agricultural industry is reflected in 45 commercial crops, each holding a value of over $1 million. San Diego County ranks number one in both California and the nation in the production value of nursery, floriculture, and avocados. Statewide, San Diego County is in the top five counties in the production of oranges, chickens, fresh market tomatoes, eggs, mushrooms, tangerines, grapefruit, and honey. In terms of total agricultural value, major crop categories for San Diego County include nursery and flower crops (cut flowers, bedding plants, foliage), fruit and nut crops (avocados, citrus, berries), vegetable crops (tomatoes, mushrooms, herbs), livestock and poultry (cattle, pigs, chickens), livestock and poultry products (milk, eggs, hide), field crops (barley, hay, oat), timber, and apiary products (honey, bees wax, pollen). Figure 2.2-4 identifies these major crop categories in percentage of total contribution to total agricultural value. The top 10 crops grown in the County include indoor flowering and foliage plants, ornamental trees and shrubs, bedding plants, avocados, tomatoes, cut flowers and foliage, eggs, poinsettias, strawberries, and Valencia oranges. Figure 2.2-5 identifies these crops in terms of 2007 growth percentages. Total values shown in these figures may not add up exactly due to rounding in the calculations.

### *2.2.1.4 Agricultural Economy*

San Diego County has the sixth highest urban population among counties in the U.S., and the twelfth largest agricultural economy nationwide. It is the only county in California that qualifies as both a major urban county and is ranked among the top 10 agricultural counties in terms of agricultural value. The San Diego County Department of Agriculture, Weights and Measures, estimates that of the County's approximate 2.73 million acres, 308,991 acres are in agriculture. Agriculture is ranked 5$^{th}$ in contributing components to the County's economy. In 2007, 9,220 agricultural shipments originated from San Diego County, destined to 55 different countries world-wide. During this time, the total reported value for all agricultural commodities produced in the County was almost $1.5 billion. This value does not reflect the cost of production. In addition, the gross economic value of farm products does not reflect the total value to the economy (AWM 2008). Table 2.2-5 highlights County crop statistics from the 2007 Agriculture, Weights and Measures annual report. Table 2.2-6 shows a 10 year comparison of agricultural growth in the County. Historical data shows that the majority of crop categories increased in value and acreage from 1997 to 2007.

### *2.2.1.5 Agricultural Trends*

This section discusses agricultural trends that are unique to the County. These include urbanization pressures, profitability margins, average farm size, water availability issues and emerging organic farming practices.

**Urbanization**

As of 2008, the population of the unincorporated area of San Diego County was 491,764. Under the proposed General Plan Update, this number would increase approximately 38 percent by 2030 to a population of 678,270. The FMMP concluded that land for urban and built-up use increased 31.1 percent in approximately 20 years, from 252,931 acres in 1984 to 345,316 acres in 2006. This is an average of nearly 4,000 acres per year. These data illustrate

the intense competition for land and other natural resources to serve San Diego County's future growth, agriculture and environmental quality.

As urbanization expands into unincorporated areas, land becomes increasingly scarce and land values continue to climb. The nature of San Diego County's high-value, low-acreage agriculture makes land used for farming attractive for development. This is reflected in the escalating agricultural land values per acre in San Diego County as reported by the California Chapter of the American Society of Farmland Managers and Rural Appraisers (ASFMRA). Information from the ASFMRA for 2007 indicates that the value of avocado farmland in San Diego County ranged from $15,000 to $62,000 per acre, citrus land from $15,000 to $170,000 per acre and cropland from $15,000 to $170,000 per acre. In comparison, the land value for avocados in San Diego County alone in 2000 ranged from $9,000 to $16,600 per acre and citrus land from $6,100 to $12,000 per acre (ASFMRA 2008).

The high price of land in San Diego County also limits the ability of farmers to purchase land for agricultural expansion. The value of land in the most productive agricultural areas of the County is typically not driven by its agricultural potential. Rather, it is usually driven by the value of its potential for urban development or as a primary residence, making land purchase for agricultural expansion infeasible for the majority of producers. As reported by DataQuick Real Estate News, important agricultural areas such as the communities of Valley Center, Fallbrook and Bonsall that are interspersed with non-agricultural uses had median home prices reported at above $600,000 in 2006. However, this same source reported median home prices in the month of 2009 at approximately $100,000 for Bonsall and $300,000 for the Fallbrook and Valley Center communities (DQ News 2009). The significant decline in median home values in these areas is attributable to the national economic downturn which began in early 2007 and severely impacted the housing market nationwide, including San Diego County.

**Profitability**

For the many small farm owners in San Diego County, remaining profitable and maximizing economies of scale has proven to be a significant challenge. While the overall number of farms has decreased in San Diego County, the change in the number of farms according to sales volume is a better indicator of trends in the business of farming. Although the USDA Census of Agriculture 2007 report does not include all farms in the County, it appears to represent agricultural trends. Table 2.2-7, Number of Farms by Sales Volume, illustrates how farms with sales less than $5,000 dropped by 34 percent. Some of these probably moved into a higher sales volume category, others consolidated, but many went out of agriculture altogether. At the same time, farms with sales volumes between $5,000 and $49,999 increased nearly 50 percent, and those with sales between $50,000 and $249,999 decreased by less than one percent. Farms with sales between $250,000 and $499,999 decreased by 21 percent, while those with sales of $500,000 or more increased by 29 percent. In order to remain profitable, individual farms need to reach a stable level of production, which is determined on an individual basis by each farm owner.

**Farm Size**

According to the 2007 Agricultural Census by the U.S. Department of Agriculture, San Diego County has 6,687 farms, the highest number of farms of all counties in the State (USDA 2009). However, the way agriculture is conducted on these farms differs greatly from agricultural operations in the majority of California. Economically productive agriculture is conducted on

small farms, with 68 percent of farms ranging from one to nine acres in size with the median farm size being four acres. In contrast, the average size of farms statewide is 313 acres. In the County, 77 percent of farmers live on their farms and 92 percent of farms are family owned. Nineteen percent of farmland in the County is held by Native Americans. In 1997, 671 citrus farms operated on two acres or less within the County. To date, this trend of small farm operations still holds within the County. Historically, the cost of land in the County made it prohibitive for many new farmers to begin an operation on a large parcel, so the ability to farm small parcels was crucial to the success of agriculture in San Diego County.

**Water**

For agricultural lands reliant on imported water, economic viability is constrained by the cost of imported water. To illustrate and compare the water costs in San Diego County to nearby farming counties, the cost for imported water from the Imperial Irrigation District (Imperial County) is $15 per AF while the average cost for agricultural water in San Diego County is $650 per AF. High agricultural water costs are due to a number of factors including limited water supply, conservation incentives, importation costs, and energy costs. Growers in Ventura County, an area similar to San Diego in terms of climate and type of agricultural crops grown, pay $379 per AF. For avocado production in San Diego County, the annual water cost is currently about $3,000 per acre and is estimated to increase to $6,000 per acre, as the crop requires up to three AF per year for optimum production. Farmers within the Metropolitan Water District service area, which includes portions of San Diego County, can enroll in Interim Agricultural Water Program (IAWP) that provides a $127 discount per AF of water. In exchange for that discount, enrolled farmers agree to take a 30 percent reduction in water deliveries in a time of drought or supply emergency before municipal and industrial users have their supplies reduced. However, the IAWP is currently being phased-out and will no longer be available after January of 2013. The San Diego County Water Authority (SDCWA) provides a Special Agricultural Water Rate (SAWR) which is currently $10 per AF less than municipal and industrial user rates. The SAWR is available to enrolled farmers in exchange for them agreeing to take cutbacks in water during emergency shortages. In times of shortage, the agricultural customers participating in the IWAP and SAWR receive water reductions of up to 30 percent before municipal and industrial customers are asked to take cutbacks in delivery. Due to recent drought conditions, the agricultural customers participating in the IWAP and SAWR have undergone reductions pursuant to these programs. The mandatory cutbacks in water supply required by the IWAP and SAWR programs have significantly affected local farmers in San Diego County.

Water cost is also affected by the price of energy. Many water districts have to pump water up to higher elevations for delivery, the cost of which has increased greatly with increases in the price of energy. These costs are passed directly to growers in the form of higher water rates. Growers themselves often need to pump water to higher elevations to reach their crop, resulting in additional overall water costs. In addition, while some farmers in San Diego County face high costs of water, others are faced with a limited supply. In areas such as Borrego Springs and Julian, farmers rely entirely on groundwater sources to irrigate crops. Water scarcity is a continuous problem for farmers in Borrego Springs given the arid climate of the region and its location outside the boundary of the SDCWA. In particular, groundwater in the Borrego Springs area is subject to an annual decline where recharge does not replace extraction. Additional information about water supply and demand is included in Section 2.16, Utilities and Service Systems.

**Organic Farming**

San Diego County is at the forefront of organic farming with 292 registered organic growers, more than any other county in the nation. In 2007, San Diego organic growers produced over 150 different crops ranging from oranges, grapes, and avocados to unusual crops such as cherimoyas, loquats, and jujubes. The top 10 organically produced crops in San Diego County are shown in Table 2.2-8. The National Organic Standards Board defines "organic agriculture" as "an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and management practices that restore, maintain and enhance ecological harmony." Research on organic farms, done over several decades, have revealed characteristics usually associated with sustainable farming to include reduced soil erosion, lower fossil fuel consumption, less leaching of nitrate, greater carbon sequestration, and little to no pesticide use.

### *2.2.1.6 Agricultural Land Preservation*

Many different land use designations exist to help preserve agricultural lands in the State and the County, including agricultural zoning, agricultural land use designations, Agricultural Preserves, and Williamson Act Contract lands. These are discussed below. Table 2.2-9 and 2.2-10 identifies the distribution and acreage of these categories by CPA.

**Agricultural Zoning**

The County Zoning Ordinance was adopted by the Board of Supervisors (BOS) as a way to regulate land uses in the unincorporated County. The current Zoning Ordinance divides the unincorporated area into zones according to the present and potential uses of the land. Currently, most zoning designations within the County allow for agricultural operations. However, Section 2700-2720 of the Zoning Ordinance includes two specific agricultural use regulations: A70 limited agriculture and A72 general agriculture. A70 and A72 regulate land uses such as the number of outbuildings or the number of animals allowed on a property. The A70 Use Regulation relates to crop production and allows for a limited number of small farm animals to be kept. The A72 Use Regulation is intended for both crops and animals. Agricultural uses are allowed in most residential, commercial and industrial land use zones; however, the keeping of animals is restricted in a number of these areas due to incompatibility issues with surrounding uses. Side-by-side parcels may have the same use regulation but different animal, development, and special area regulations. Approximately 31 percent of the unincorporated area in the County is zoned A70 limited agriculture or A72 general agriculture.

The County Zoning Ordinance also has a Special Area Regulation Designator ("A") to denote those lands in the County which have been designated as being within an Agricultural Preserve in accordance with the California Land Conservation Act of 1965, commonly referred to as the Williamson Act. There are restrictions on the land under the Williamson Act, as well as the County Zoning Ordinance, which accompany the implementation of the "A" designator.

**Agriculture Land Use Designations**

The existing San Diego County General Plan (DPLU 1978) identifies two agricultural land use designations: (20) General Agriculture and (19) Intensive Agriculture. The (20) General Agriculture designation is applied to areas where agricultural use is encouraged, protected and

facilitated. This designation is intended to facilitate agricultural use as the dominant land use. Uses supportive of and/or compatible with agriculture, including low density residential, are also permitted under this designation. The (19) Intensive Agriculture designation promotes a variety of agricultural uses including minor commercial, industrial and public facility uses appropriate to agricultural operations or supportive of the agricultural population. Approximately 10 percent of the County's unincorporated area is designated as General Agriculture or Intensive Agriculture. However, many of the County's existing productive agricultural uses are located outside areas designated for either General Agriculture or Intensive Agriculture.

## Agricultural Preserves

Agricultural Preserves are regulated by rules and restrictions designated to ensure that the land within the preserve is maintained for agricultural or open space use. An Agricultural Preserve is adopted by the BOS and designates an area devoted to agricultural use, open space use, recreational use or any combination of such uses, as defined by the Williamson Act, and further addressed in the San Diego County BOS Policy I-38, Agricultural Preserves. Preserves are established for the purpose of defining the boundaries of areas that the County is willing to enter into a contract pursuant to the Williamson Act, which is further discussed below. Landowners within an adopted preserve area may enter into a contract with the County to restrict their land to the uses stated above whereby the tax assessment on their land will be based on its restricted use rather than on its market value. The minimum parcel size to qualify for an Agricultural Preserve is 10 acres for groves or croplands, 80 acres for grazing land, and 40 acres for mixed land uses. Only land located within an Agricultural Preserve is eligible for a Williamson Act Contract, as discussed below. Figure 2.2-6 shows the location of adopted Agricultural Preserves within the County, for which there are approximately 402,100 acres within the unincorporated County (see Table 2.2-10).

## Williamson Act Contract Lands

The Williamson Act has been the State's premier agricultural land protection program since its enactment in 1965. This Act was passed to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. Nearly 16.9 million of the State's 29 million acres of farmland and ranchland are currently protected under the Williamson Act (DLRP 2008c). In the unincorporated County, approximately 80,504 acres of private, federal and State lands are in Williamson Act Contract. During the past 25 years, very few property owners have requested to enter into a Williamson Act Contract within San Diego County. According to information from the County Assessor's Office, only two contracts were executed in San Diego County between 1980 and 2005 and 40 parcels currently under a Williamson Act Contract are in the process of Non-Renewal, as defined by the Williamson Act. The Non-Renewal process takes 10 years to complete, during which time property taxes are incrementally raised to remove the tax benefit, and at the end of the 10 year period restrictions to development are lifted. Figure 2.2-6 identifies the location of Williamson Act Contract lands within the County.

## 2.2.2 Regulatory Framework

### *2.2.2.1 Federal*

**Farmland Protection Policy Act**

The USDA administers the Farmland Protection Policy Act of 1981. The Act is intended to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses. The act also requires these programs to be compatible with State, local, and private efforts to protect farmland.

### *2.2.2.2 State*

**California Civil Code Section 3482.5 (The Right to Farm Act)**

The Right to Farm Act is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a "manner consistent with proper and accepted customs." The code specifies that established operations that have been in business for three or more years that were not nuisances at the time they began shall not be considered a nuisance as a result of a new land use.

**California Land Conservation Act (Williamson Act)**

The Williamson Act of 1965 was designed as an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban and suburban development. The program requires a 10-year contract between the County and the land owner. While in contract, the land is taxed on the basis of its agricultural use rather than its market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement. The goal of the Williamson Act is to protect agriculture and open space.

**California Farmland Conservancy Program (CFCP)**

Implemented by the California Department of Conservation, the CFCP is a voluntary program that seeks to encourage the long-term, private stewardship of agricultural lands through the use of agricultural conservation easements. The CFCP, formerly known as the Agricultural Land Stewardship Program, was created in 1996, and provides grant funding for projects that use and support agricultural conservation easements for the protection of agricultural lands.

**Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000**

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 established procedures for local government changes of organization, including city incorporates, annexations to a city or special district, and city and special district consolidations. This act requires that development or use of land for other than open-space shall be guided away from existing prime agricultural lands in open-space use toward areas containing nonprime agricultural lands, unless that action would not promote that planned, orderly, efficient development of an area.

## Open Space Subvention Act (OSSA)

The OSSA was enacted on January 1, 1972, to provide for the partial replacement of local property tax revenue foregone as a result of participation in the Williamson Act and other enforceable open space restriction programs (Government Code Section 16140 et seq.). Participating local governments receive annual payment on the basis of the quantity (number of acres), quality (soil type and agricultural productivity), and, for Farmland Security Zone contracts, location (proximity to a city) of land enrolled under eligible enforceable open space restrictions. A Farmland Security Zone is an area created within an Agricultural Preserve by a board of supervisors upon request by a landowner or group of landowners.

## Farmland Mapping and Monitoring Program (FMMP)

The FMMP, established in 1982, produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status, with the best quality land called Prime Farmland. Maps are updated every two years, with current land use information gathered from aerial photographs, a computer mapping system, public review, and field reconnaissance. The minimum mapping unit is 10 acres. The DOC Prime Farmlands, Farmlands of Statewide Importance, and Unique Farmlands are referenced in the CEQA Guidelines, Appendix G, as resources to consider in an evaluation of agricultural impacts.

## Farm and Ranch Lands Protection Program (FRPP)

The FRPP is a voluntary program that helps farmers and ranchers keep their land in agriculture. The program provides matching funds to State, tribal or local governments and non-governmental organizations with existing farm and ranch land protection programs to purchase conservation easements. FRPP is reauthorized in the Farm Security and Rural Investment Act of 2002. The USDA Natural Resources Conservation Service (USDA 2008c) manages the program.

## California Land Evaluation Site Assessment Model (LESA)

The USDA NRCS developed LESA to assist State and local officials to make sound decisions about land use. Combined with forest measures and rangeland parameters, LESA can provide a technical framework to numerically rank land parcels through local resource evaluation. In determining whether impacts to agricultural resources are significant environmental effects, the CEQA Guidelines reference the California Agricultural LESA Model prepared by the DOC, as an optional methodology that may be used to assess the relative value of agriculture and farmland. The California Agricultural LESA Model evaluates soil resource quality, project size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined, resulting in a single numeric score. The project score then becomes the basis for making a determination of a project's potential significance. The California Department of Conservation encourages local agencies to develop local agricultural models to account for the variability of local agricultural resources and conditions. An alternative approach, referred to as the Local Agricultural Resource Assessment (LARA) model, has been developed to assess the relative value of agricultural resources in San Diego County.

### *2.2.2.3 Local*

**County of San Diego Code of Regulatory Ordinances Sections 63.401 through 63.407, Agricultural Enterprises and Consumer Information Ordinance**

This ordinance is similar to the State Right to Farm Act. The ordinance defines and limits the circumstances under which agricultural enterprise activities, operations, and facilities will constitute a nuisance. The ordinance recognizes that the commercial agricultural industry in the County of San Diego is a significant element of the County's economy and a valuable open space/greenbelt resource for County residents. The ordinance establishes a procedure whereby prospective purchasers of property are notified in writing of the inherent potential conditions associated with agricultural operations found throughout the unincorporated area. These conditions include, but are not limited to, noise, odors, dust, insects, rodents, and chemicals. The application of this ordinance is not to be construed to in any way modify or abridge the State law set out in The Right to Farm Act relative to agricultural nuisances.

**County of San Diego BOS Policy I-38, Agricultural Preserves**

The BOS Policy I-38 sets forth policies for the implementation of the California Land Conservation Act of 1965, known as the Williamson Act. In 1965 the State Legislature added to the Government Code Sections 51200 et. seq. which authorized the County to establish Agricultural Preserves. Board Policy I-38 identifies criteria for the establishment, modification and disestablishment of an Agricultural Preserve including processing requirements, application fees, and hearing requirements. The policy also establishes a minimum size for an Agricultural Preserve, requires that each preserve establish minimum ownership sizes that landowners must meet to be eligible for a contract, requires the application of zoning regulations, establishes eligibility criteria for filing an application for an Agricultural Preserve and contract with the County, and establishes criteria to cancel a contract including cancellation by eminent domain.

**County of San Diego BOS Policy I-133, Support and Encouragement of Farming in San Diego County**

In 2005, the BOS adopted Policy I-133 to establish the County's support of agriculture. The policy recognizes the Board's commitment, support, and encouragement of farming in San Diego County through the establishment of partnerships with landowners and other stakeholders to identify, secure, and implement incentives that support the continuation of farming as a major industry in San Diego. The intent is to develop and implement programs designed to support and encourage farming in San Diego County.

**County of San Diego Farming Program**

The County of San Diego has completed a contract with American Farmland Trust to help develop the Farming Program. The Farming Program is intended to create the framework for an economically and environmentally sustainable farming industry for San Diego County. The Plan, when adopted, will include land use policies and programs to keep land available and affordable for farming on a voluntary basis. It will also include economic development tools to help improve farm profitability.

**Agricultural Clearing Permit Requirements**

A County Agricultural Clearing Permit is typically required for projects involving the clearing and/or removal of natural vegetation on agricultural land. The establishment of a new agricultural operation on, or the expansion of an existing operation into, any area that has not been in agricultural production for at least one of the preceding five years may also be required to obtain an agricultural clearing permit. Agriculturally related clearing within the MSCP boundary would also require an agricultural clearing permit.

**Local Agricultural Resource Assessment (LARA) Model**

The LARA model has been developed by the County DPLU to assess the relative value of agricultural resources in the County. The LARA model serves as the local agricultural model that accounts for the variability of local agricultural resources and conditions. San Diego County has chosen to use the LARA model to determine the importance of agricultural resources, rather than the LESA model, because the LARA model accounts for the large number of farms in the County that are less than 10 acres in size and takes into account the County's unique soil conditions. The LESA model does not account for agricultural resources less than 10 acres in size. The County uses the LARA model to determine the importance of agricultural resources in the context of discretionary land use projects. The LARA model considers soils, climate and water as primary model factors while also considering the presence of Williamson Act Contracts, other preserved lands, and existing land uses in the surrounding area.

## 2.2.3 Analysis of Project Effects and Determination of Significance

### *2.2.3.1 Issue 1: Direct Conversion of Agricultural Resources*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Agricultural Resources, the proposed General Plan Update would have a significant impact if it would convert San Diego County Agricultural Resources (including, but not limited to, Prime Farmland, Unique Farmland, Farmland of Statewide or Local Importance, pursuant to the FMMP of the California Resources Agency), or other agricultural resources, to non-agricultural use. A significant impact would also occur if the proposed project would substantially impair the ongoing viability of important agricultural resources.

**Impact Analysis**

**Definition of Agricultural Resources**

For the purpose of this analysis, the definition of an agricultural resource has been broadened from the FMMP definition to include any land with an active agricultural operation, or any site with a history of agricultural production based on aerial photography or other data sources identifying agricultural land uses. The reason for the broadened definition is to include in the analysis the many small farms in San Diego County that the FMMP does not include due to the 10 acre minimum criteria. It should be noted that not all agricultural resources that have been identified within the County and discussed below are in active operation. The agricultural

resources discussed below include lands within the unincorporated County that are available and suitable for agricultural use, although they may not be in current agricultural use. These resources have been included to provide a broad picture of the potential agricultural resources that exist within the County. Issues indirectly related to agriculture, such as farmworker housing and biological impacts from clearing and grading agricultural lands are discussed in other sections of this EIR. Farmworker housing is discussed in detail in Section 2.12, Population and Housing. Biological impacts are further discussed in Section 2.2, Biological Resources.

**Conversion of Agricultural Resources to Non-Agricultural Land Uses**

The conversion of agricultural resources to non-agricultural land uses would result in a direct impact to agriculture by significantly reducing or eliminating the productive capacity of the land. According to the FMMP, agricultural land in the County has been reduced through land conversion to other uses. As shown in Table 2.2-1, FMMP data indicates that agricultural acreage in San Diego County has been declining since at least 1984. This is due to a number of issues which create pressures on the continuation of agriculture, such as high land values, conflicts with the urban/agricultural interface, and the high economic cost of operation. Contradictory to the decline in agricultural resources identified by the FMMP, information contained in the San Diego County Annual Crop Report (AWM 2008) indicates that agricultural acreage has actually increased over the past 10 years. This is shown in Table 2.2-6 which identifies a total of 170,917 acres of agriculture in 1997 and 308,991 acres in 2007. On the surface, these numbers contradict the decline that the FMMP has identified for agricultural resources in the County. However, according to AWM, reported increases in agricultural acreages are due to improved survey information obtained during the years 2001 and 2002. It is unlikely that County agricultural acreage actually increased from 1997 to 2007 and more likely that additional existing agricultural operations were identified and included in these acreage surveys over the years. Additionally, it should be noted that the 308,991 agricultural acres reported by AWM is lower than the agricultural lands subtotals reported by the FMMP from 1984 through 2006. This further indicates that AWM data does not include all FMMP resources.

Although agricultural acreage has been declining over the past three decades, agriculture continues to be a vital component of the San Diego County economy. This is due, in part, to the many small farms in the County that produce high value crops. Sixty-eight percent of farms within the County range in size from one to nine acres, with the median size of farms being four acres. The agricultural trend of producing high value crops on small amounts of land has allowed San Diego County farmers to continue economically productive operations, despite the land use pressures discussed above.

The existing General Plan identifies specific land use designations for agriculture uses, including general agriculture and intensive agriculture. Instead of providing specific agricultural land use designations, implementation of the proposed General Plan Update would allow agricultural operations to occur under any land use designation and would eliminate the existing land use designations for agriculture. Generally, land currently designated for general agriculture and intensive agriculture under the existing General Plan would be designated for open space, rural lands, or semi-rural lands under the General Plan Update. For example, areas within the Julian CPA that are designated for intensive agriculture under the existing General Plan would be changed to the rural lands designation under the proposed General Plan Update. Another example is located in the Bonsall CPA, where land currently designated for intensive agriculture under the existing General Plan would be changed to the semi-rural residential land use designation under the proposed General Plan Update.

In order to evaluate the potential impact that the proposed General Plan Update would have on agricultural resources throughout the unincorporated County, an analysis of proposed land use designations that would be placed on areas containing existing agricultural resources has been prepared. Although all land uses proposed under the General Plan Update would have the potential to result in a loss of agricultural resources, some land uses have a higher potential to result in a direct conversion of agricultural resources to non-agricultural uses than others. Table 2.2-11 identifies the acreages of proposed land use designations that would be placed on lands containing existing agricultural resources under implementation of the General Plan Update. It should be noted that not all agricultural resources identified in Table 2.2-11 are in active agriculture. Rather, the data shown in Table 2.2-11 includes any land with an active agricultural operation, or any site with a history of agricultural production based on aerial photography or other data sources identifying agricultural land uses. Therefore, the following discussion presents a conservative estimate of the potential impact that the proposed General Plan Update would have on agricultural resources because it includes unincorporated agricultural resources that are not currently in agricultural production.

**Village Residential and Village Core Mixed Use.** Although agriculture has become increasingly more viable on smaller lot sizes within the unincorporated County, there becomes a point when an individual lot size is considered to be too small for a viable agricultural operation to persist. For the purposes of this analysis, and as a conservative estimate, areas allowing one dwelling unit per acre (du/acre) would be considered too small to support a viable agricultural operation. Therefore, any parcels smaller than one du/acre have been calculated to result in a 100 percent conversion of agricultural resources to non-agricultural uses for the purposes of this analysis.

With implementation of the proposed General Plan Update, nine residential land use designations within the village residential category would allow densities ranging from two to 30 du/acre. All nine village residential land use designations, in addition to the village core mixed use designation, would have an allowable development density of greater than 1 du/acre. Therefore, areas classified with the village residential and village core mixed designations would not be considered viable for agriculture operations. Any existing agricultural resources located within these proposed land use designations would be considered to be fully impacted by the proposed project, and represent a direct conversion of agricultural resources to non-agricultural land uses.

As shown in Table 2.2-11, approximately 4,518 acres of County agricultural resources are located in areas that would be designated for greater than 1 du/acre under the proposed General Plan Update. Implementation of the proposed General Plan Update would result in the designation of approximately 4,461 acres of village residential and 57 acres of village core mixed land uses in areas containing existing agricultural resources. Since land uses that would be designated for greater than 1 du/acre under the proposed General Plan Update are assumed to be fully impacted, they represent a direct conversion of agricultural resources to non-agricultural land uses. Therefore, the proposed General Plan Update would result in the direct conversion of 4,518 acres of agricultural resources from the implementation of land use designations village residential and village core mixed use.

**Industrial, Commercial, Office Professional.** Industrial, commercial and office professional land use designations proposed under the General Plan Update would be considered incompatible with agricultural resources because the allowable development on these lands contrast significantly from typical characteristics of viable agricultural operations. Although

possible, it is unlikely that any development allowable under the industrial, commercial or office land use designations would maintain viable agricultural operations in conjunction with development. For example, only in rare cases would an industrial park or office building development (allowable under these proposed land uses) operate on the same parcel as an agricultural use, such as a field crop, orchard, vineyard or truck crop operation. Additionally, industrial, commercial and office land uses would allow high density development, which is considered incompatible with agricultural resources for the reasons listed above. Therefore, areas classified with the industrial, commercial or office designations would generally not be considered viable for agriculture operations. Any existing agricultural resources located within these proposed land use designations would be considered fully impacted, and represent a direct conversion of agricultural resources to non-agricultural land use.

The proposed General Plan Update would apply three land use designations within both the commercial and industrial land use categories and one land use designation within the office professional category. As shown in Table 2.2-11, 470 total acres of industrial, 507 total acres of commercial, and 7 total acres of office land uses would be designated in areas considered to be County agricultural resources. Therefore, implementation of the proposed General Plan Update would result in a direct conversion of 984 acres of agricultural resources from proposed industrial, commercial and office professional land use designations.

**Rural and Semi-Rural Residential.** When compared to other residential land use designations proposed in the General Plan Update such as village residential, the proposed rural and semi-rural land use designations denote areas where lower density residential development would occur. Therefore, the rural and semi-rural land use designations proposed under the General Plan Update would be considered generally compatible with agricultural resources. Rural and semi-rural land use designations would allow for the development of large lots with lower density restrictions. Generally, agricultural operations are viable in the County in areas with residential land use densities less than one dwelling unit per acre.

The proposed General Plan Update rural land use category would be implemented to preserve the rural agricultural and backcountry areas of the unincorporated County. Four residential land use designations would be applied within the rural land use category under implementation of the proposed General Plan Update. The densities allowable under the rural land use designations are the lowest of all proposed in the General Plan Update and range from one dwelling unit per 20 gross acres (RL-20), to one dwelling unit per 160 gross acres (RL-160). As shown in Table 2.2-11, implementation of the proposed General Plan Update would result in the designation of 38,118 acres of RL-20; 49,575 acres of rural lands at one dwelling unit per forty acres (RL-40); and 6,648 acres of rural lands at one dwelling unit per eighty acres (RL-80) in areas considered to be County agricultural resources. The proposed General Plan Update would not result in the designation of any RL-160 in areas currently classified as agricultural resources. A total of 94,341 acres of rural lands would be located in areas currently classified as agricultural resources.

Under implementation of the proposed General Plan Update, four residential land use designations would be applied within the semi-rural residential category. Semi-rural densities range from one dwelling unit per one acre (SR-1) to one dwelling unit per ten acres (SR-10). As shown in Table 2.2-11, implementation of the proposed General Plan Update would result in the designation of 8,442 acres of (SR-1); 33,109 acres of semi-rural residential at one dwelling unit per two acres (SR-2); 23,387 acres of semi-rural residential at one dwelling unit per four acres (SR-4); and 23,824 acres of SR-10 in areas considered to be County agricultural resources. A

total of 88,762 acres of semi-rural residential would be located over areas considered to be County agricultural resources.

Although the proposed semi-rural and rural land use designations would be considered generally compatible with agricultural resources, the subdivision of these lands increases the potential for an agricultural resource to be converted to a non-agricultural use. For example, a 560 acre parcel with existing agricultural resources and a land use designation of R-80 could hypothetically subdivide into 7 large-lot residential units, each with one residential unit. In contrast, a different 560 acre parcel with existing agricultural resources and a land use designation of R-20 could hypothetically subdivide into 28 large-lot residential units. Due to San Diego's unique agricultural characteristics, land that is subdivided into smaller lots would actually increase agricultural viability, since smaller parcels are more affordable and still conducive for raising crops in the County. However, any subdivision of land resulting in the development of housing would create some agricultural acreage loss from development activities such as grading activities and the installation of residences, driveways, utilities, leach fields and accessory units.

For the purpose of this analysis, County DPLU performed a review of built-out subdivision projects that have occurred in the unincorporated County over existing agricultural resources. This review indicated that historically, the subdivision of lands over existing agricultural resources averaged a total of 1.5 acres of agricultural resources being permanently converted to a non-agricultural land use per lot. Therefore, to evaluate the potential for agricultural resources to be converted to non-agricultural uses from implementation of the proposed General Plan Update rural and semi-rural land use designations, the historical conversion factor of 1.5 acres per lot was used. Table 2.2-11 identifies that the proposed RL-20 land use designation would occur over 38,118 acres of existing agricultural resources. Hypothetically, these 38,118 acres could subdivide into a maximum of 1,906 residential lots, with each lot consisting of one dwelling unit on 20 acres. Each of the 1,906 subdivided residential lots would potentially impact 1.5 acres of agricultural resources. Therefore, implementation of the proposed RL-20 land use designation would potentially impact 2,859 acres of agricultural resources. Although it is not realistic to assume that every parcel with a proposed rural or semi-rural land use designation would be subdivided to the maximum extent feasible, the conversion factor of 1.5 acres per residential lot is used in this analysis to provide a conservative estimate of agricultural resources that would be impacted under implementation of the proposed General Plan Update rural and semi-rural land use designations.

Using the same conversion factor and the data shown in Table 2.2-11, the proposed land use designation RL-40 would impact 1,859 total acres of agricultural resources, RL-80 would impact 125 total acres of agricultural resources, SR-2 would impact 24,832 acres of agricultural resources, SR-4 would impact 8,770 acres of agricultural resources, and SR-10 would impact 3,574 acres of agricultural resources. The proposed land use designation SR-1 would be assumed to impact one acre of agricultural resources per lot (the entire lot), with a total of 8,442 acres converted. Therefore, based on a conservative estimate and historical agricultural conversion trends from the subdivision of land within the unincorporated County, implementation of the proposed rural and semi-rural land uses would impact 50,461 acres of agricultural resources. Although rural lands and semi-rural residential lands are generally considered compatible with agriculture, the process of subdividing land in areas that have agricultural resources increases the potential to convert agricultural resources to non-agricultural uses.

**State and Federal Lands, Military Installations, Tribal Lands.** Table 2.2-11 identifies that the proposed General Plan Update would result in the designation of 68,452 acres of State and federal lands, 22,752 acres of military installation, and 4,903 acres of tribal lands in areas considered to contain County agricultural resources. As shown in Table 2.2-11, the majority of agricultural resources located within State and federal lands (99 percent), military installations (92 percent), and tribal lands (79 percent) are classified as grazing lands. As discussed in Table 2.2-4, grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use.

Land use activities on State and federal lands, military installations, and tribal lands are outside the jurisdiction of the County of San Diego and would not be impacted by implementation of the proposed project. Existing agricultural resources and operations that exist within these land use designations would not be expected to change under implementation of the proposed General Plan Update. For these reasons, the designation of State and federal land, military installation, tribal land use categories in areas containing existing agricultural resources would not represent a direct conversion of agricultural resources to non-agricultural uses.

**Specific Plan Areas.** Table 2.2-11 identifies that the proposed General Plan Update would result in the designation of 13,083 acres of specific plan area land uses in areas considered to contain County agricultural resources. As shown in Table 2.2-11, 83 percent of the agricultural resources located within specific plan areas are classified as grazing lands. Grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use. In order to be designated as a specific plan area, a specific plan is subject to CEQA review, which requires an analysis of the potential impacts that a specific plan would have on existing County agricultural resources. Specific plan areas denoted within the proposed General Plan Update have been approved in the past with corresponding environmental analysis documents. Any potential impacts to agricultural resources resulting from specific plan areas have been previously addressed and mitigated, if necessary, in the CEQA documents prepared for the specific plans. Therefore, the specific plan area land use designation proposed in General Plan Update would not result in further impacts to agricultural resources.

**Open Space (Conservation), Open Space (Recreation) and Public/Semi-Public Facilities.** As shown in Table 2.2-11, 140,493 total acres of open space (conservation), 289 total acres of open space (recreation) and 5,024 total acres of public/semi-public facilities land uses would be designated in areas considered to contain County agricultural resources. Under the proposed General Plan Update, the open space (conservation) designation would primarily be applied to lands dedicated to open space that are owned by a jurisdiction, public agency, or conservancy group. Allowed uses would include habitat preserves, passive recreation, and reservoirs. Grazing and other uses would be permitted if they do not substantially diminish protected resources or alter the character of the area. As shown in Table 2.2-11, 98 percent of the agricultural resources located in areas designated as open space (conservation) are classified as grazing lands. In rare cases, open space (conservation) would prohibit grazing in favor of biological preservation. However, biological preservation generally occurs in areas separate from those with existing agricultural resources. Open space (conservation) lands located in the unincorporated County and owned by a conservancy group would remain under the jurisdiction of the County. Open space (conservation) lands located in the unincorporated County and owned by alternative jurisdictions or public agencies, such as school or water districts, are not under the jurisdiction of the County. Regardless of ownership, the land uses currently implemented in the open space (conservation) areas would not be expected to change under

implementation of the proposed General Plan Update. Therefore, the designation of an open space (conservation) use over an existing agricultural resource would not represent a direct conversion.

With implementation of the proposed General Plan Update, the open space (recreation) designation would apply to large, existing recreational areas while the public/semi-public land use designation would serve to identify major facilities built and maintained for public use. Similar to open space (conservation), the open space (recreation) and public/semi-public land use designations would not typically prohibit agricultural operations in favor of biological preservation, recreational use, or public facilities because these resources and uses generally occur in areas separate from those containing agricultural resources. Additionally, in areas where open space (recreation) and public/semi-public land use designations are under the jurisdiction of other public agencies (such as school districts, water districts or the National Forest Service) and outside the jurisdiction of the County, existing agricultural operations in these areas would not be expected to change with implementation of the General Plan Update. Therefore, the designation of open space (recreation) or public/semi-public land uses in areas considered to contain existing agricultural resources would not represent a direct conversion.

**Federal, State and Local Regulations and Existing Regulatory Processes**

As identified in the Regulatory Framework section above, there are a number of federal, State, and local regulations, programs and policies in place to protect agricultural resources in the County from conversion. These include the Williamson Act, CFCP, OSSA, FMMP, FRPP, San Diego County BOS Policies I-38 and I-133, and the San Diego County Farming Program. Density and lot size restrictions also play a significant role in preserving agricultural resources by limiting the amount of development that can occur in a given area. These restrictions and other zoning regulations also help to maintain the character of areas and minimize development pressures on agricultural lands. However, these regulations can also result in the conversion of agricultural resources by allowing substantial development on and adjacent to agricultural lands.

Projects that are subject to discretionary review by the County undergo an evaluation for agricultural impacts. This evaluation is based on the County's Guidelines for Determining Significance and the LARA model. Through this process, mitigation measures are required for projects that would result in a potentially significant conversion of agricultural land. Some community plans also contain policies that relate to preservation of agriculture and guide decision making on projects that could result in impacts to agricultural resources.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains goals and policies within the Land Use, and Conservation and Open Space Elements that would preserve existing agricultural resources within the unincorporated County and promote the agricultural industry within the County to ensure the long term-viability of agricultural resources.

Within the Land Use Element, Goal LU-6 is to create a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.4 supports this goal by requiring sustainable subdivision design with the intent to protect agricultural operations. Goal LU-7 is to create a land use plan that retains and protects farming and agriculture as beneficial resources that contribute to the County's rural character. Policies in support of this goal include Policies LU-7.1 and LU-7.2,

which would protect agricultural lands with lower density land use designations, and would allow for reductions in lot size for compatible development when tracts of historically agricultural land are preserved in conservation easements for continued agricultural use.

Within the Conservation and Open Space Element, Goal COS-6 is to maintain a viable and long-term agricultural industry and the sustainability of agricultural land uses in San Diego County that serve as a beneficial resource and contributor to the County's rural character and open space network. Policy COS-6.4 supports this goal by supporting the acquisition and voluntary dedication of conservation easements and programs.

**Conservation Subdivision Program**

In addition to the goals and policies listed above, the County of San Diego is currently proposing a conservation subdivision program which would encourage residential subdivision design that improves preservation of sensitive environmental resources while balancing planned densities and community character. The intention of the program is to accommodate planned growth without sacrificing other essential components of unincorporated communities such as character, habitat lands, farmlands, groundwater supplies, unique topography, historical and cultural resources, scenic resources, recreational trails, and park lands.

The term "conservation subdivision" is typically used to define a compact residential development that includes community open space on the remaining land for the purpose of protecting environmental resources and/or providing recreational facilities. Conservation subdivision design results in numerous benefits, including the retention of existing agriculture/farmland. Other benefits include the preservation of local biodiversity, increased watershed protection, improved recreational opportunities, reduced infrastructure costs, and improved fire protection for residential developments. The conservation subdivision program would focus on those lands designated as semi-rural 10, rural lands 20, rural lands 40, rural lands 80 and rural lands 160.

**Farming Program**

The County is also in the process of preparing a Farming Program for agricultural planning that would create a framework for an economically and environmentally sustainable agricultural industry. The Farming Program would streamline the regulatory environment for farmers, provide recommendations for the proposed Purchase of Agricultural Conservation Easements (PACE) program, and support County pest exclusion and pest detection efforts designed to minimize the economic damage caused by quarantines and treatment protocols required for new and exotic pests. Participants in the PACE program would voluntarily place easement restrictions on property to protect the agricultural resources associated with the parcel. These easements would either be sold or donated by the landowner, and constitute a legally binding restriction that prohibits certain types of development, such as residential or commercial use, from taking place on the land.

**Summary**

As discussed above, the following land uses proposed by the General Plan Update would be considered to represent a direct conversion of agricultural resources, if designated in areas considered to contain existing County agricultural resources: village residential, village core mixed use, industrial, commercial and office professional. The proposed General Plan Update

would designate these land uses over approximately 5,502 acres of existing County agricultural resources. Additionally, the potential subdivision of rural and semi-rural lands would result in the conversion of agricultural resources to non-agricultural land uses. Based upon historical agricultural conversion trends from the subdivision of land within the unincorporated County, implementation of the proposed rural and semi-rural land uses would potentially convert 50,461 acres of agricultural resources. Therefore, implementation of the proposed General Plan Update would result in the direct conversion of 55,963 acres of agricultural resources to non-agricultural land uses. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect agricultural resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact to agricultural resources and specific implementation programs are identified as mitigation.

### *2.2.3.2 Issue 2: Land Use Conflicts*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Agricultural Resources, the proposed General Plan Update would have a significant impact if it would conflict with a Williamson Act Contract (contract) or the provisions of the California Land Conservation Act of 1965 (Williamson Act). Additionally, a significant impact would occur if the proposed project would conflict with existing zoning for agricultural use.

**Impact Analysis**

**Williamson Act Contracts**

Within the unincorporated County, there are approximately 402,100 total acres of land in designated Agricultural Preserves. Although land may be in a County adopted Agricultural Preserve, and bear the "A" Special Area Regulation Designator, it should be noted that the vast majority of these areas are not in active agriculture. Table 2.2-10 identifies the distribution of Agricultural Preserves by CPA. Those areas with the largest acreage of preserves include Central Mountain Subregion - remainder (30,113 acres), Desert Subregion (48,777 acres), Jamul/Dulzura CPA (31,157 acres), Pala/Pauma Valley Subregion (20,301 acres), Pine Valley (within the Central Mountain CPA) (62,069 acres) and Ramona CPA (26,114 acres). Figure 2.2-6 depicts the location of Agricultural Preserves throughout the County.

Any land in a County adopted Agricultural Preserve is eligible for entry into a Williamson Act Contract. However, while approximately 402,100 acres of land are within County adopted Agricultural Preserves, only approximately 80,500 acres of land are currently under Williamson Act Contract. In addition, very few of these contracts were recently established. Table 2.2-10 identifies CPA's with lands currently under Williamson Act Contract. Those areas with the largest areas under contract include Cuyamaca (Central Mountain Subregion) (3,946 acres), Desert Subregion (3,007 acres), Jamul/Dulzura Subregion (3,289 acres), Julian CPA (5,352 acres), North Mountain Subregion – remainder (31,280 acres), and Ramona CPA (5,401 acres). Figure 2.2-6 depicts the location of land under Williamson Act Contract throughout the County.

Implementation of the proposed General Plan Update would remove parcels from adopted Agricultural Preserves for most of the land that is not currently under a Williamson Act Contract. Additionally, implementation of the General Plan Update would remove the County Zoning Ordinance "A" Special Area Regulation Designator in all Agricultural Preserves not currently under a Williamson Act Contract. The removal of parcels from adopted Agricultural Preserves and the "A" designator would apply to approximately 321,590 acres of land throughout the County. However, for those lands under Contract, when the Contract expires, the land would continue to be designated as an Agricultural Preserve with the "A" designator, unless the owner applies to have the designation removed through an action by the County BOS. As noted above, there are use restrictions under the Williamson Act and the "A" Special Area Regulation Designator that would continue to run with the land until the property owner applied, and was approved for, the removal of their parcel(s) from the Agricultural Preserve. Therefore, although implementation of the proposed General Plan Update would remove lands not currently under a Williamson Act Contract from County adopted Agricultural Preserves, it would not result in a conflict with any existing Williamson Act Contract or the provisions of the Williamson Act.

Although a direct land use conflict would not occur, agricultural resources would be impacted from the removal of non-contracted lands from Agricultural Preserves. One purpose of an Agricultural Preserve is to protect Williamson Act Contract lands from nearby incompatible development. By removing lands from a preserve at the boundary of a Contract area, new incompatible land uses could be developed adjacent to existing agricultural resources. Incompatible land uses could result in an indirect conversion of agricultural resources. Therefore, because implementation of the proposed General Plan Update would remove the Agricultural Preserve designation, a potential land use conflict would occur because agricultural resources under Williamson Act Contract, and in the vicinity of the areas removed from Agricultural Preserve designation, may no longer be fully protected from surrounding development pressures. This would be considered a potentially significant impact. As an example, Williamson Act Contract lands located in Ramona would be indirectly impacted by the higher density residential land uses proposed by the General Plan Update, which would replace areas that were previously under a County-adopted Agricultural Preserve. Indirect impacts to agricultural resources are further discussed below in Issue 3: Indirect Conversion of Agricultural Resources. However, it should be noted that the majority of Williamson Act Contract lands are located in the central portion of the County, within the Central Mountain and North Mountain Subregions (see Figure 2.2-6). Generally, the proposed General Plan Update would designate lower-density land uses into these areas, thereby reducing the overall potential for incompatible development of adjacent lands.

### Agricultural Zoning

The County Zoning Ordinance establishes zones which regulate the use of land, height of buildings, area of lots, setbacks, and other patterns. County zoning maps show the boundaries of such zones. The County Zoning Ordinance, Section 2700-2720, currently has two designations for agricultural zoning, A70 – limited agriculture and A72 – general agriculture. Figure 2.2-7 identifies the areas within the County that are designated A70 and A72. As shown in Table 2.2-12, approximately 313,150 acres of land within the unincorporated County are zoned A70 and 430,676 acres are zoned A72. A70 and A72 zones do not serve to protect and preserve agricultural land uses, rather these zones regulate land use, such as the number of outbuildings or animals allowed on a property. The zoning regulations do not exclusively permit agricultural uses and often residential, commercial or industrial operations exist within these zones. Conversely, the zoning regulations do not restrict agricultural operations throughout the

County, as current zoning allows for agriculture in every area of the County. Table 2.2-12 identifies the proposed General Plan Update land use designations and acreages in areas currently zoned A70 and A72. The majority of land uses proposed under implementation of the General Plan Update, and within the A70 or A72 zones, would be rural lands, semi-rural residential lands, open space, and State and federal lands, which are generally regarded as compatible land uses for agricultural operations.

The land uses proposed under the General Plan Update would not conflict with agricultural zoning. Although A70 and A72 zones specifically address agriculture, agricultural operations are allowed in every area of the County. Additionally, a number of other zoning requirements also apply to lands in A70 and A72 zones. Under existing conditions, no zoning designation exclusively regulates agricultural operations. This would also be true with implementation of the proposed General Plan Update. No exclusive land use designation to regulate or restrict the location of agricultural operations is proposed and agricultural operations would be allowed in every area of the County under the proposed project. Therefore, implementation of the proposed General Plan Update would not conflict with existing agricultural zoning, and a potentially significant impact would not occur.

**Federal, State and Local Regulations and Existing Regulatory Processes**

In addition to the regulations identified in the Regulatory Framework section above, all parcels in the County that are subject to a Williamson Act contract are specifically noted in the County's GIS database. Additionally, all Williamson Act Contract lands are within Agricultural Preserves, which receive an "A" Special Area Regulation Designator pursuant to the Zoning Ordinance. These notes and designations are intended to ensure that any land use permit that is processed by the County is consistent with the Williamson Act, including the County adopted Agricultural Preserve and Contract. For those parcels under Contract, the "A" designator would generally be superseded by the requirements and restrictions of the established Contract. For non-contracted lands, the "A" designator further imposes findings on any proposal that requires a Major Use Permit to ensure that the use is not incompatible with the continued agricultural use of land within the Agricultural Preserve, thereby, reducing the potential indirect effects of a proposed use. Subdivisions are also reviewed in light of the Subdivision Map Act which contains specific mention of Williamson Act Contract lands, as well as lands not under Contract but within an adopted Agricultural Preserve. Projects that are subject to discretionary review by the County are also reviewed for Williamson Act Contract conflicts based on the County's Guidelines for Determining Significance and CEQA. These guidelines require that the evaluation extends to areas adjacent to Williamson Act Contract lands, as well as the lands under Contract.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains goals and policies within the Land Use Element and the Conservation and Open Space Element that would reduce agricultural land use conflicts. Goal LU-7 creates a land use plan that retains and protects farming and agriculture as beneficial resources that contribute to the County's rural character. Policy LU-7.1 would protect agricultural lands with lower density land use designations that support continued agricultural operations. Goal COS-6 aims to create a viable and long-term agricultural industry and the sustainability of agricultural land uses in San Diego County that serve as a beneficial resource and contributor to the County's rural character and open space network. Policy COS-6.3 would require planning for new development adjacent to agricultural land uses to encourage siting

compatible recreational and open space uses and multi-use trails adjacent to the agricultural lands, where these uses are mutually beneficial and would minimize conflicts with non-agricultural land uses.

**Summary**

Implementation of the proposed General Plan Update would remove non-contracted lands from County adopted Agricultural Preserves and remove the "A" designator from these lands. By removing lands from a preserve at the boundary of a Contract area, new incompatible land uses could be developed adjacent to existing agricultural resources. Therefore, because implementation of the proposed General Plan Update would remove the agricultural preserve designation, a potential land use conflict would occur because agricultural resources under Williamson Act Contract, and in the vicinity of the areas removed from the Agricultural Preserve designation, may no longer be fully protected from surrounding development pressures. Therefore, this would be considered a potentially significant impact. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect agricultural resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to Williamson Act Contract Lands and specific implementation programs are identified as mitigation.

### *2.2.3.3 Issue 3: Indirect Conversion of Agricultural Resources*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Agricultural Resources, the proposed County General Plan Update would have a significant impact if it would involve other changes in the existing environment which, due to their location or nature, could result in conversion of a San Diego County agricultural resource to non-agricultural use.

A potentially significant indirect impact to a San Diego County agricultural resource would occur if proposed land uses under the General Plan Update would result in compatibility conflicts with existing agricultural activities. Land use/agricultural interface issues often arise from dust, noise, liability concerns, trespassing, theft, competition for water, traffic, pest introduction and conflicts with pesticide use. The type of agricultural use and the sensitivity of the nearby land uses would be key considerations in determining agricultural compatibility. As an example, orchard crops would be more likely to be compatible with surrounding residential uses than a confined animal feeding operation. In addition, if a sensitive use, such as a school, church, day care or other use involving a concentration of people is proposed within one mile of an existing agricultural operation or land under contract, land use/agricultural interface conflicts could increase. If these conflicts would result in the conversion of agricultural resources to a non-agricultural uses, then a potentially significant impact would occur.

**Impact Analysis**

Land uses proposed near an active agricultural use have the potential to cause the conversion of agricultural resources to non-agricultural uses because of the potential incompatibility between the proposed use and existing agricultural activity. Adverse impacts caused by

incompatible development near agricultural uses would include, but would not be limited to: farm practice complaints; pesticide use limitations; liability concerns; economic instability caused by urbanization and changing land values; trespassing, theft, and vandalism; damage to equipment, crops, and livestock; introduction of urban use pollutants entering farm water sources; competition for water; development affecting recharge of groundwater; soil erosion and storm water runoff emanating from urban use; shading of crops from inappropriate buffering; importation of pests and weeds from urban areas or introduced pest populations from unmaintained landscaping; increased traffic; effects of nighttime lighting on growth patterns of greenhouse crops; and interruption of cold air drainage.

The Farmland Protection Action Guide published by the Institute for Local Self Government (ILSG 2002) summarizes the conflicts that occur at the agriculture urban interface as follows:

> "This situation is a common one: A fast-growing community approves a subdivision located on farmland, placing new homes right next to farms. Proximity to the bucolic landscape is one of the development's most attractive features. But the new homeowners are soon disillusioned by pesticide drift, night harvesting, odor, flies, dust and slow-moving tractors. Farmers also have concerns about adjacent development. Theft and vandalism increase when the surrounding area urbanizes. Imported pests and increased traffic also affect operations. As a result, farmers may see the next wave of development as inevitable, and accordingly reduce investments in their operation. The operation becomes less profitable, real estate becomes more valuable, and soon another farmer is willing to entertain offers from developers. Farming and residential uses are fundamentally incompatible. When they are located next to one another, local agencies can anticipate significant complaints and problems. However, there are several strategies that local agencies can use to head off or reduce such problems, such as creating physical barriers and educating residents to create more appropriate expectations. Such approaches can improve both the quality of life in new subdivisions and farmers' ability to remain a viable part of the local agricultural economy."

As described above, conflicts at the agriculture/urban interface flow in two directions: from existing agricultural use to a newly established non-agricultural use and from a newly established non-agricultural use to existing agricultural use. Complaints from encroaching urban uses force changes in normal farming practices. Farmers feel pressured to change or discontinue their agricultural operation; reduce investments in the operation; make financial investments in an effort to appease the encroaching urban environment; or reduce productivity and, consequently, income. Although the focus of this analysis is on the impacts to agricultural resources and not the impacts that farms would have on new residential or urban uses, the adverse effects perceived by new urban neighbors near farms must be recognized as an indirect contributor to the degradation of the viability of surrounding farms.

The type of agricultural use and the sensitivity of the nearby land uses are key considerations in determining agricultural compatibility. As an example, orchard crops would be more likely to be compatible with surrounding residential land uses than a confined animal feeding operation. Orchard crops such as citrus typically have fewer compatibility issues than nurseries, confined animal facilities, and row crop production, due to lower chemical treatments, less farmworker presence, less truck traffic, and fewer odors. In addition, if a sensitive use, such as a school, church, day care or other use involving a concentration of people is proposed near an existing

agricultural operation or land under Williamson Act Contract, agricultural interface conflicts could increase. Additionally, growth inducement and the associated extension of infrastructure that can change rural character and increase the likelihood of agriculture/urban interface conflicts would indirectly impact the agricultural resources within the County. Significant economic impacts to active agricultural operations compromise the ongoing viability of agricultural operations and result in an increased likelihood of conversion.

Implementation of the proposed General Plan Update would increase density within the vicinity of some agricultural operations while allowing for agricultural operations to exist within any land use designation, including within the vicinity of sensitive receptors. As shown in Figure 2.2-1, the majority of FMMP-classified Prime Farmland, Farmland of Local Importance, Farmland of Statewide Importance and Unique Farmland are clustered in the western portion of the unincorporated County, near incorporated jurisdictions and within or adjacent to the SDCWA service area. The location of existing agricultural resources is further shown in Figure 2.2-2, where the majority of orchards and vineyards, truck crops, intensive agriculture, and field crops are located within or adjacent to the SDCWA boundary. Implementation of the proposed General Plan Update would redirect 80 percent of the projected population growth into the western portion of the County, specifically areas within the SDCWA service area. This would be consistent with the policies included in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, which requires that development of land for uses other than open-space uses be guided away from existing prime agricultural lands, unless that action would not promote the planned, orderly, efficient development of an area. Implementation of the General Plan Update would direct non-open space development into appropriate areas; however, the redirection of high density growth into areas containing agricultural resources would cause some indirect conversion (in addition to the direct conversion discussed in Issue 1: Direct Conversion of Agricultural Resources) of agricultural resources to non-agricultural use, due to the land use conflicts discussed above. Therefore, this would be considered a potentially significant impact.

It should be noted that not all agricultural resources would be adversely affected by the proposed shift of density to areas within or adjacent to the existing SDCWA service area. As shown in Figure 2.2-2, the County has significant grazing land resources that are located outside of the SDCWA boundary and that would not be adversely affected by implementation of the General Plan Update. Implementation of the General Plan Update would retain lower density development in eastern unincorporated San Diego County, which could result in an increase of agricultural resources in that area. Additionally, within certain areas in the County, such as Bonsall, implementation of the General Plan Update would maintain lower density development near agricultural resources in order to reduce potential land use conflicts.

Other indirect effects that would cause the conversion of agricultural resources to non-agricultural uses include various project features such as: 1) the proposed removal of non-contracted lands from County adopted Agricultural Preserves; 2) the placement of public trails on agricultural lands; and 3) the additional competition for water from proposed residential, commercial, industrial uses. The removal of non-contracted lands from Agricultural Preserves may remove a barrier to growth in the vicinity of existing agricultural operations, thereby resulting in indirect conversion to non-agricultural uses for some areas. Trails adjacent to agricultural lands can result in increased trespassing, theft, and potential disease to crops. For example, trails in avocado orchards can increase exposure to avocado root rot. Although policies within the County Trails Master Plan and the proposed General Plan Update specifically require trails to be placed a certain distance and downhill from orchards to avoid root rot, it is

difficult to restrict hikers from veering off established trails and into agricultural areas. Root rot is easily transmitted to avocados because the spores of the disease move naturally through the soil and are spread on horse hoofs and on the shoes of trail users. The competition over limited water resources in the region is an escalating issue that particularly affects farmers. Such water supply constraints may indirectly result in the conversion of existing agricultural resources to non-agricultural uses. Additional analysis regarding water supply in the County is included in Section 2.16.3.4 Issue 4: Adequate Water Supplies.

On occasion, federal, State and local environmental regulations also contribute to the indirect conversion of agricultural resources. For example, livestock or poultry operations in the vicinity of a creek would be subject to water quality standards and setbacks to prevent agricultural wastes and runoff from reaching the creek. Regulations requiring setbacks could result in the loss of some existing agricultural resources near the creek while additional costs associated with managing agricultural operations in compliance with applicable water quality standards could drive up operational costs such that an indirect conversion of agricultural resources would occur.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Federal, State, and local regulations that protect agricultural lands from conversion, both direct and indirect, are summarized under Section 2.2.3.1, Issue 1: Conversion of Agricultural Resources. Additionally, the County's Guidelines for Determining Significance require that lands adjacent to agricultural resources be evaluated for possible impacts.

To offset the indirect conversion of agricultural resources, the County of San Diego is in the process of formulating and implementing a number of programs to help preserve agricultural resources, such as the PACE program. This program would create agricultural easements for the protection of agricultural resources throughout the County. Generally, agricultural easements are effective in protecting and retaining farming operations, even for properties that are later purchased by non-farmers primarily for residential use. The reason for this is that residential purchasers tend to lease their newly acquired land to active farmers for ease of management and tax reasons. However, there are challenges to agricultural easement programs. Often jurisdictions have difficulty completing acquisitions stated in the program goals for reasons such as the high cost of land in the San Diego County region. Also, many communities with agricultural easements experience a decline in agricultural services, such as farm supply outlets, tractor dealers and processing facilities, causing the viability of agricultural operations to be compromised (AFT 2006).

**Proposed General Plan Goals and Policies**

The proposed General Plan Update contains goals and policies within the Land Use Element, Housing Element, and Conservation and Open Space Element that would help reduce the potential for the indirect conversion of agricultural resources to non-agricultural uses. Within the Land Use Element, Goal LU-6 is to create a built environment, in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.4 supports this goal by requiring residential subdivisions to conserve open space and natural resources and protect agricultural operations including grazing. Goal LU-7 is to create a land use plan that retains and protects farming and agriculture as beneficial resources that contribute to the County's rural character. Policies in support of this goal include Policies LU-7.1 and LU-7.2, which would protect agricultural lands with lower density land use

designations and allow for reductions in lot sizes when large tracts of historically agricultural land are preserved in conservation easements for continued agricultural use.

Within the Conservation and Open Space Element, Goal COS-6 is to create a viable and long-term agricultural industry and the sustainability of agricultural land uses in San Diego County that serve as a beneficial resource and contributor to the County's rural character and open space network. Policies COS-6.2 and COS-6.3 supports this goal by protecting existing agricultural operations from encroachment of incompatible land uses.

**Summary**

Implementation of the proposed General Plan Update would result in an indirect conversion of agricultural resources to non-agricultural land uses for a variety of reasons, as discussed above. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect agricultural resources from indirect conversion, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to the indirect conversion of agricultural resources and specific implementation programs are identified as mitigation.

## 2.2.4 Cumulative Impacts

The geographic scope for cumulative analysis of agricultural resources is the San Diego region, which includes the entire County of San Diego, including incorporated areas, Riverside County, Orange County and Imperial County. The scope for the cumulative analysis has been defined by the climatic conditions of southern California that create a subtropical climate that optimizes the production of a variety of crops that would be more difficult to produce elsewhere.

### *2.2.4.1 Issue 1: Direct Conversion of Agricultural Resources*

In general, agricultural resources are in decline in the San Diego region. This decline can be attributed, in part, to the increasing population in the region and subsequent pressures that would require the direct conversion of lands supporting agricultural resources to be converted to non-agricultural uses. Cumulative projects in the incorporated cities and surrounding counties would have the potential to convert agricultural lands and resources to non-agricultural uses from the development of incompatible land uses such as commercial, industrial or high density residential. Additionally, tribal lands within the County currently account for approximately 19 percent of the total agricultural operations in the unincorporated County. Many of the tribes are planning to construct new residential, commercial, casino, and resort developments, which would have the potential to directly convert agricultural resources to non-agricultural land uses. Therefore, cumulative projects would result in a potentially significant impact related to the direct conversion of agricultural resources in the San Diego region.

As discussed above, implementation of the proposed General Plan Update would result in the direct conversion of agricultural resources to non-agricultural uses due to the loss of agricultural viability under some proposed land use designations. In combination with other cumulative projects, such as development projects allowable under surrounding jurisdictions general plans and tribal projects, the proposed project would have a cumulatively considerable contribution to a regionally significant impact to the direct conversion of agricultural land.

### *2.2.4.2 Issue 2: Land Use Conflicts*

Within the San Diego region, incorporated cities and surrounding counties designate and adopt Agricultural Preserves, enter into Williamson Act Contracts and adopt agricultural zoning to protect their agricultural resources. With these regulations in place, cumulative projects occurring in the San Diego region, such as development allowable under surrounding jurisdictions' general plans, would not result in conflicts with existing agricultural zoning or Williamson Act Contracts. Additionally, implementation of any cumulative project would be subject to CEQA review, which requires an analysis of the potential impacts that a proposed project would have on agricultural lands. Any potential impact to agricultural resources from a proposed cumulative project would have undergone analysis and mitigation, if required, to reduce any direct conversion of agricultural resources to a level below significance. Therefore, cumulative projects would not result in a potentially significant impact related to agricultural land use conflicts.

Implementation of the General Plan Update would result in a potentially significant conflict with agricultural zoning or land under Williamson Act Contract. However, as discussed above, a potentially significant cumulative impact would not occur from the combined impacts of other cumulative projects. Therefore, the proposed General Plan Update would not contribute to a potentially significant cumulative impact.

### *2.2.4.3 Issue 3: Indirect Conversion of Agricultural Resources*

Within the San Diego region, the indirect conversion of farmland is increasing due to population growth and the subsequent development required to support this growth. Land use conflicts often arise from increased agricultural/urban interface areas, high operating costs, and escalating property values. These conflicts have the potential to occur in incorporated cities and surrounding counties. Development on tribal lands would also place incompatible land uses in the vicinity of existing agricultural operations. Similar to the proposed project, cumulative projects resulting in urban development are anticipated to indirectly affect the viability of agricultural resources in the region by increasing conflicts related to urban/agricultural interfaces and increasing land values, which would result in a potentially significant cumulative impact. Implementation of the proposed General Plan Update also has the potential to result in an indirect conversion of agricultural resources to non-agricultural uses from conflicts arising from proposed General Plan Update land uses. In combination with other cumulative projects such as development projects allowable under surrounding jurisdictions' general plans and tribal projects, the proposed project would have a cumulatively considerable contribution to a regionally significant impact to the indirect conversion of agricultural land.

## 2.2.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would result in potentially significant direct and cumulative impacts regarding the direct and indirect conversion of agricultural resources to non-agricultural uses. Implementation of the proposed General Plan Update would not result in potentially significant direct or cumulative impact associated with land use conflicts with agricultural zoning or Williamson Act Contract lands.

## 2.2.6 Mitigation

### *2.2.6.1 Issue 1: Conversion of Agricultural Resources*

The proposed General Plan Update would allow additional growth and development to occur in the County consistent with proposed land use designations, which would result in the direct conversion of agricultural resources. General Plan Update policies and mitigation measures (described further below), have been identified that would minimize these impacts. Some mitigation measures have been identified that would reduce impacts associated with agricultural resources to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan Update policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts associated with the direct conversion of agricultural resources within the unincorporated County to below a level of significance. However, the County has determined that these measures would be infeasible, as described below. Therefore, these measures would not be implemented.

- Restrict any development of land uses with allowable densities of 1 du/acre or more, due to potential incompatibilities with agricultural resources. This measure would be infeasible because it would result in restrictions on future development in areas identified for increased growth under the proposed General Plan Update. Restricting land use densities of 1 du/acre or more would result in a greater concentration of lower density land uses distributed throughout the unincorporated County and would discourage sustainable growth because infrastructure costs, vehicle miles traveled and environmental impacts associated with development would be increased. This mitigation measure would conflict with the project objective of promoting sustainability by locating new development near existing infrastructure, services and jobs and conflict with the General Plan Update housing goal of supporting a reasonable share of projected regional population growth.

- Create a land use designation solely for agricultural resources, within which no other land uses would be allowable. This measure would be infeasible because it would result in restrictions on future development in areas identified for increased growth under the proposed General Plan Update and/or areas where existing land uses are not the same as the land uses proposed by the General Plan Update. Additionally, many agricultural operations throughout the unincorporated County are unique in that they operate on small lots, located adjacent to a variety of land uses, such as residential. Creating an agriculture-resource-only land use designation would negatively impact many existing County agricultural operations located in non-agricultural land uses. Therefore, this measure would conflict with the proposed project's objective to preserve agriculture as an integral component of the region's economy, character, and open space network.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with direct conversion of agriculture as compared to the proposed project.

## General Plan Update Policies

The following policies would reduce impacts associated with the direct conversion of agricultural resources, but not to below a significant level.

**Policy LU-6.4: Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [See applicable community plan for possible relevant policies.]

**Policy LU-7.1: Agricultural Land Development.** Protect agricultural lands with lower-density land use designations that support continued agricultural operations.

**Policy LU-7.2: Parcel Size Reduction as Incentive for Agriculture.** Allow for reductions in lot size for compatible development when tracts of existing historically agricultural land are preserved in conservation easements for continued agricultural use.

**Policy COS-6.4: Conservation Easements.** Support the acquisition or voluntary dedication of agriculture conservation easements and programs that preserve agricultural lands.

## Mitigation Measures

The following mitigation measures would reduce impacts associated with the direct conversion of agricultural resources, but not to below a significant level.

**Agr-1.1** Implement the General Plan Regional Category map and Land Use Maps which protect agricultural lands with lower density land use designations that will support continued agricultural operations.

**Agr-1.2** Develop and implement programs and regulations that protect agricultural lands (such as the CEQA guidelines, Zoning Ordinance, Right to Farm Act, Open Space Subvention Act, Farm and Ranch Lands Protection Program, San Diego County Agricultural Enterprises and Consumer Information Ordinance, BOS Policy I-133, and the San Diego County Farming Program), as well as, those that support implementation of the Williamson Act (including the CEQA guidelines, Zoning Ordinance, and Subdivision Ordinance).

**Agr-1.3** Create a Conservation Subdivision Program that facilitates conservation-oriented project design through changes to the Subdivision Ordinance, Resource Protection Ordinance, Zoning Ordinance, Groundwater Ordinance, and other regulations as necessary with the goal of promoting conservation of natural resources and open space (including agricultural lands) while improving mechanisms for flexibility in project design so that the production of housing is not negatively impacted.

**Agr-1.4** Develop and implement the PACE program which compensates landowners for voluntarily limiting future development on their land.

**Agr-1.5** Revise community plans to identify important agricultural areas within them and specific compatible uses and desired buffers necessary to maintain the viability of that area. Community plans are used to review development projects (including General Plan Amendments).

### *2.2.6.2 Issue 2: Land Use Conflicts*

The following General Plan Update policies and mitigation measures would reduce the proposed project's direct impacts related to conflicts with agricultural zoning or Williamson Act Contract lands to a level below significant.

**Proposed General Plan Update Policies**

**Policy LU-7.1: Agricultural Land Development.** Protect agricultural lands with lower density land use designations that will support continued agricultural operations.

**Policy COS-6.3: Compatibility with Recreation and Open Space.** Encourage siting compatible recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses.

**Mitigation Measures**

The following mitigation measure would reduce impacts associated with conflicts with Williamson Act Contract lands to a level below significant.

**Agr-2.1** Prior to the approval of any Zoning Ordinance Amendment that would result in the removal of an "A" designator from a certain property, an analysis shall be conducted to ensure that the action removing such a designation will not result in any significant direct or indirect adverse impact to a Williamson Act Contract lands.

### *2.2.6.3 Issue 3: Indirect Conversion of Agricultural Resources*

The proposed General Plan Update would designate land uses that would allow additional growth and development to occur in the County which would have the potential to indirectly convert agricultural resources to non-agricultural use. General Plan Update policies and mitigation measures (described further below) have been identified that would minimize these impacts. Some mitigation measures have been identified that would reduce impacts related to the indirect conversion of agricultural resources to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan Update policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts associated with the indirect conversion of agricultural resources to below a level of significance. However, the

County has determined that these measures would be infeasible, as described below. Therefore, these mitigation measures would not be implemented.

- Within 0.5-mile of any agricultural resource, approve development that is compatible in size and scope with the existing agricultural resource. This measure would be infeasible because it would restrict future development in areas identified for increased growth in the General Plan Update. Small farming operations are typical in the County, and many existing and potential agricultural operations are located on small parcels with intermixed surrounding land uses. This measure would restrict certain types of incompatible development in these areas, which would have the potential to conflict with the land uses proposed under the General Plan Update. This measure would also conflict with the project objective of promoting sustainability by locating new development near existing infrastructure, services and jobs because many existing agricultural resources within the unincorporated County are located in areas where existing infrastructure, services and jobs already exist.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with indirect conversion of agriculture as compared to the proposed project.

**General Plan Update Policies**

The policies listed under Section 2.2.6.3, Issue 1: Direct Conversion of Agricultural Resources are applicable to this issue and incorporated here by reference. The following policies would reduce impacts associated with the indirect conversion of agricultural resources, but not to below a significant level.

**Policy COS-6.2: Protection of Agricultural Operations.** Protect existing agricultural operations from encroachment of incompatible land uses by doing the following:

- Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations
- Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses
- Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development.
- Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture
- Supporting local and State right-to-farm regulations
- Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process

**Policy COS-6.3: Compatibility with Recreation and Open Space.** Encourage siting recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses.

**Mitigation Measures**

The mitigation measures listed under Section 2.2.6.1, Issue 1: Direct Conversion of Agricultural Resources, are applicable to this issue and would be implemented to reduce impacts to the indirect conversion of farmland, although not to below a significant level.

## 2.2.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.2.7.1 Issue 1: Conversion of Agricultural Resources*

The following land uses proposed by the General Plan Update would be considered to represent a direct conversion of agricultural resources, if designated in areas considered to contain existing County agricultural resources: village residential, village core mixed use, industrial, commercial and office professional. The proposed General Plan Update would designate these land uses over approximately 5,502 acres of existing County agricultural resources. Additionally, based upon historical agricultural conversion trends, the potential subdivision of rural and semi-rural lands would result in the conversion of 50,461 acres of agricultural resources to non-agricultural uses. Therefore, implementation of the proposed General Plan Update would result in the direct conversion of 55,963 acres of agricultural resources to non-agricultural land uses.

General Plan Update policies and mitigation measures, in addition to compliance with the Farmland Protection Policy Act, the Right to Farm Act, Williamson Act, Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, OSSA, San Diego County Agricultural Enterprises and Consumer Information Ordinance, San Diego County BOS Policies I-38 and I-133, would partially reduce proposed project impacts related to the conversion of farmland; however, not to below a level of significance. Therefore, project impacts would remain significant and unavoidable. Additionally, the proposed project, in combination with other cumulative projects, would have a cumulatively considerable contribution to the regional loss of agricultural land. To achieve all project objectives of the proposed General Plan Update, impacts related to the direct conversion of agricultural resources would remain significant and unavoidable. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

### *2.2.7.2 Issue 2: Land Use Conflicts*

Implementation of the proposed General Plan Update would remove non-contracted lands from County-adopted Agricultural Preserves and would also remove the “A” designator from these lands. By removing lands from a preserve at the boundary of a Contract area, new incompatible land uses could be developed adjacent to existing agricultural resources. Therefore, this would

be considered a potentially significant land use conflict to Williamson Act Contract lands. However, implementation of the proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact to below a level of significance. As discussed above, a potentially significant cumulative impact would not occur from the combined agricultural land use conflict impacts of other cumulative projects. Therefore, the proposed General Plan Update would not contribute to a potentially significant cumulative impact.

### *2.2.7.3 Issue 3: Indirect Conversion of Agricultural Resources*

Implementation of the General Plan Update would redirect high density growth into areas containing agricultural resources and potentially cause some indirect conversion of agricultural resources to non-agricultural use, which is considered to be a potentially significant impact. The proposed General Plan policies and mitigation measures, in addition to compliance with applicable regulations such as those discussed under Section 2.2.7.1, Issue 1: Direct Conversion of Agricultural Resources, would partially reduce proposed project impacts related to indirect impacts to agricultural resources, although not to below a level of significance. Additionally, the proposed project would have a cumulatively considerable contribution to a potentially significant cumulative impact associated with the indirect conversion of agricultural land. Therefore, direct and cumulative impacts would be significant and unavoidable. To achieve all project objectives of the proposed General Plan Update, impacts related to the indirect conversion of agricultural resources would remain significant and unavoidable. Alternatives that would further reduce this impact are discussed in Chapter 4.0, Project Alternatives.

## Table 2.2-1. San Diego County Farmland Mapping and Monitoring Program Acreages

| Land Use Category | Acreage By Category [1] | | | | | | | | | | | | 1984-2006 Net Acreage Changed | Average Annual Acreage Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1986 | 1988 | 1990 | 1992 | 1994 | 1996 | 1998 | 2000 [2] | 2002 [3] | 2004 [4] | 2006 | | |
| Prime Farmland | 15,497 | 12,364 | 11,759 | 12,130 | 12,014 | 11,796 | 11,100 | 10,660 | 10,257 | 9,401 | 8,527 | 8,251 | -7,246 | -329 |
| Farmland of Statewide Importance | 28,542 | 16,090 | 15,314 | 15,543 | 14,466 | 13,961 | 13,902 | 13,617 | 13,142 | 13,450 | 12,181 | 10,959 | -17,583 | -799 |
| Unique Farmland | 69,588 | 67,682 | 69,219 | 70,819 | 70,462 | 69,153 | 67,734 | 67,535 | 57,306 | 57,522 | 55,565 | 53,250 | -16,338 | -743 |
| Farmland of Local Importance | 98,493 | 115,241 | 111,451 | 107,209 | 102,475 | 104,493 | 105,190 | 105,001 | 112,398 | 133,543 | 134,489 | 134,892 | +36,399 | +1,655 |
| **Important Farmland Subtotal** | **212,120** | **211,377** | **207,743** | **205,701** | **199,417** | **199,403** | **197,926** | **196,813** | **193,103** | **213,916** | **210,762** | **207,352** | **-4,768** | **-217** |
| Grazing Land | 159,835 | 160,232 | 156,246 | 152,251 | 146,306 | 144,760 | 142,857 | 142,335 | 137,619 | 111,442 | 107,328 | 106,680 | -53,155 | -2,416 |
| **Agricultural Land Subtotal** | **371,955** | **371,609** | **363,989** | **357,952** | **345,723** | **344,163** | **340,783** | **339,148** | **330,722** | **325,358** | **318,090** | **314,032** | **-57,923** | **-2,633** |
| Urban and Built-Up Land | 252,931 | 264,889 | 274,812 | 287,820 | 297,095 | 301,546 | 307,169 | 311,491 | 323,909 | 332,715 | 338,845 | 345,316 | +92,385 | +4,199 |
| Other Land | 1,530,215 | 1,518,702 | 1,516,346 | 1,509,273 | 1,512,228 | 1,509,453 | 1,507,356 | 1,504,625 | 1,499,018 | 1,495,576 | 1,496,460 | 1,494,047 | -36,168 | -1,644 |
| Water Area | 11,591 | 11,494 | 11,546 | 11,646 | 11,646 | 11,530 | 11,385 | 11,429 | 13,043 | 13,043 | 13,298 | 13,298 | +1,707 | +78 |
| **Total Area Inventoried** | **2,166,692** | **2,166,694** | **2,166,693** | **2,166,691** | **2,166,692** | **2,166,692** | **2,166,693** | **2,166,693** | **2,166,692** | **2,166,692** | **2,166,693** | **2,166,693** | **1** | **0** |

[1] Figures are generated from the most current version of the GIS data. Files dating from 1984 through 1992 were reprocessed with a standardized county line in the Albers Equal Area projection, and other boundary improvements.

[2] Water area changed between 1998 and 2000 to reflect digitizing of Barrett Lake and Morena Reservoir from USGS quads, plus other minor corrections.

[3] Due to the incorporation of digital soil survey data (SSURGO) during this update, acreages for farmland, grazing and other land use categories may differ from those published in the 2000-2002 California Farmland Conversion Report. In particular, Farmland of Local Importance increased relative to Grazing Lands as a result of the automated selection of qualifying soil units.

[4] Water area changed in 2004 due to completion of Olivenhain Reservoir.

Percentage of County Inventoried: 80 percent

Source: DLRP 2008b

## Table 2.2-2. FMMP Farmland Categories

| |
|---|
| **Prime Farmland** |
| Land with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. |
| **Farmland of Statewide Importance** |
| Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the last FMMP mapping date. |
| **Unique Farmland** |
| Land of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. |
| **Farmland of Local Importance** |
| Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In San Diego County, this category is defined as land that meets all the characteristics of Prime and Statewide, with the exception of irrigation. They are farmlands not covered by the above categories but are of significant economic importance to the county. They have a history of good production for locally adapted crops. The soils are grouped in types that are suited for truck crops (such as tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus). |
| **Grazing Land** |
| Land on which the existing vegetation is suited to the grazing of livestock. It has a minimum mapping unit of 40 acres. |
| **Urban and Built-up Land** |
| Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. |
| **Other Land** |
| Land not included in any other mapping category such as low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. |
| **Water Area** |
| Perennial water bodies with an extent of at least 40 acres. |

Source: DLRP 2006

## Table 2.2-3. Existing Agricultural Resource Distribution in the County (in acres)

| CPA or Subregion | Grazing Lands | | Cropland | | | Total Acres |
|---|---|---|---|---|---|---|
| | Field Crops | Grazing Lands | Intensive Agriculture | Orchards and Vineyards | Truck Crops | |
| Alpine | 1,103 | 2,960 | 14 | 17 | 37 | 4,131 |
| Bonsall | 291 | 2,228 | 121 | 6,712 | 1,896 | 11,248 |
| Central Mountain | 467 | 53,489 | 1 | 4 | 86 | 54,047 |
| County Islands | 1 | 3 | 20 | - | 3 | 27 |
| Crest/Dehesa | 304 | 11,503 | - | 285 | - | 12,092 |
| Desert | 852 | 32,530 | - | 3,446 | 1,452 | 38,280 |
| Fallbrook | 628 | 2,153 | 81 | 13,972 | 1,510 | 18,344 |
| Jamul/Dulzura | 2,215 | 20,200 | 122 | 367 | 432 | 23,336 |
| Julian | 232 | 2,108 | - | 817 | 170 | 3,327 |
| Lakeside | 466 | 14,167 | 40 | 580 | 181 | 15,434 |
| Mountain Empire | 1,312 | 40,282 | 0 | 42 | 325 | 41,961 |
| North County Metro | 738 | 8,460 | 348 | 8,060 | 2,084 | 19,690 |
| North Mountain | 1,758 | 21,572 | 0 | 289 | 806 | 24,425 |
| Otay | 132 | 12,722 | 3 | - | - | 12,857 |
| Pala/Pauma | 422 | 5,056 | 0 | 9,346 | 1,976 | 16,800 |
| Pendleton/De Luz | 242 | 25,164 | 0 | 4,271 | 2,175 | 31,852 |
| Rainbow | 10 | 458 | 21 | 3,036 | 920 | 4,445 |
| Ramona | 2,164 | 19,829 | 877 | 5,472 | 374 | 28,716 |
| San Dieguito | 341 | 1,985 | 232 | 2,216 | 332 | 5,106 |
| Spring Valley | 24 | 713 | 19 | - | 10 | 766 |
| Sweet Water | 10 | 3,009 | - | 2 | 20 | 3,041 |
| Valle De Oro | 203 | 3,141 | 16 | 61 | 51 | 3,472 |
| Valley Center | 1,404 | 6,293 | 267 | 24,085 | 2,154 | 34,203 |
| **Total Acres** | 15,319 | 290,025 | 2,182 | 83,080 | 16,994 | 407,600 |

Note: Data has been rounded to nearest whole number.
Source: SanGIS 2008

## Table 2.2-4. County Agricultural Resource Categories

| |
|---|
| **Grazing Land Category**<br>The DPLU grazing land category includes grazing lands and field crops. Both field crops and grazing operations in San Diego County are economically marginal because of a lack of sufficient contiguous area with good soils, sufficient rainfall, and appropriate topography. |
| **Field Crops**<br>Field crops include agriculture that requires clearing of native vegetation to plant a crop, but requires little other farm management or inputs. Field crops do not require the use of pesticides or irrigation infrastructure. Most field crops in the County are dryland farmed, restricting active agricultural use of the land to the wet winter months. Field crops include alfalfa, oat, wheat, other grains and similar crops. |
| **Grazing Lands**<br>Grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use. These lands generally involve no mechanical impact to the land and require little support infrastructure. Grazing lands do not require the use of pesticides or irrigation infrastructure. Grazing is a low water use activity reliant on natural water sources or wells. The location of grazing lands in the County reflects this fact, with much of the identified grazing lands being located east of the SDCWA service area. |
| **Cropland Category**<br>The DPLU cropland category includes intensive agriculture, orchards and vineyards, and truck crops. Commodities included in the cropland category generally involve more permanent or severe land disturbance. |
| **Intensive Agriculture**<br>This category includes semi-agricultural and incidental agricultural operations such as chicken farms, dairies, poultry farms, and livestock feed lots. |
| **Orchards and Vineyards**<br>Orchards and Vineyards include crops such as apples, apricots, avocados, citrus fruits and wine grapes. |
| **Truck Crops**<br>Truck crops include all indoor and outdoor greenhouse flowers, vegetable crops and row crops. Truck crops include tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, cauliflower and similar crops. |

Source: DPLU 2007b

## Table 2.2-5. Economics of Agricultural Crops in San Diego County

| Year 2007 | |
|---|---|
| Total Value | $1,536,429,974 |
| Change in Value from 2006<br>Percent Change | $74,764,713<br>+5.1% |
| Total Acreage | 308,991 |
| Change in Acreage from 2006<br>Percent Change | 6,305<br>-2.0% |
| Highest Value per Acre<br>Dollar Value per Acre | Indoor Flowering & Foliage Plants<br>$539,029 |
| Crop with the Lowest Value Per Acre<br>Dollar Value per Acre | Oat Grain<br>$14 |

Source: AWM 2008

## Table 2.2-6. Ten Year Comparison of Major Crops in San Diego County (1997-2007)

| Agricultural Grouping | 1997 | | 2007 | |
|---|---|---|---|---|
| | Acreage | Value (dollars) | Acreage | Value (dollars) |
| Nursery & Flower Crops | 8,295 | $704,988,190 | 9,836 | $1,042,461,078 |
| Fruit & Nut Crops | 42,384 | $215,090,527 | 46,180 | $231,160,982 |
| Vegetable Crops | 13,227 | $112,364,649 | 6,888 | $159,549,612 |
| Livestock & Poultry Products[(1)] | Note [(1)] | $85,395,203 | Note [(1)] | $73,324,083 |
| Livestock and Poultry[(1)] | Note [(1)] | $14,082,554 | Note [(1)] | $20,461,957 |
| Field Crops | 107,011 | $5,650,940 | 246,087 | $5,299,084 |
| Apiary[(1)] | Note [(1)] | $1,153,787 | Note [(1)] | $3,423,868 |
| Timber[(1)] | Note [(1)] | $629,850 | Note [(1)] | $749,310 |
| **Totals** | **170,917** | **$1,139,355,700** | **308,991** | **$1,536,429,974** |

[(1)] acreages not reported, numbers do not add due to rounding
Source: AWM 2008

## Table 2.2-7. Number of Farms by Sales Volume in San Diego County

| Sales Volume | 1997 | 2007 | Change 1997 to 2007 (percent) |
|---|---|---|---|
| Less than $5,000 | 4,380 | 2,875 | -34 |
| $5,000 to $9,999 | 690 | 1,006 | 45 |
| $10,000 to $19,999 | 564 | 948 | 68 |
| $20,000 to $24,999 | 168 | 267 | 58 |
| $25,000 to $39,999 | 320 | 395 | 23 |
| $40,000 to $49,999 | 123 | 128 | 4 |
| $50,000 to $99,999 | 374 | 345 | -7 |
| $100,000 to $249,999 | 300 | 326 | 8 |
| $250,000 to $499,999 | 171 | 135 | -21 |
| $500,000 or more | 203 | 262 | 29 |
| **Totals** | **7,293** | **6,687** | **-8** |

Source: USDA 2009

## Table 2.2-8. Top Ten Organically Produced Crops in San Diego County

| Crop | Acreage |
|---|---|
| Oranges | 1,189 |
| Avocados | 1,180 |
| Lemons | 675 |
| Grapefruit | 405 |
| Tangelos/Tangerines | 256 |
| Chard | 133 |
| Cucumbers | 66 |
| Radicchio | 62 |
| Beans | 59 |
| Persimmons | 55 |

Source: AWM 2008

## Table 2.2-9. Existing Agricultural Zones, Designations, Preserves and Contracts in San Diego County (in acres)

| CPA or Subregion | Total Acres in CPA | A70 Zone | A72 Zone | (19) Intensive Agriculture Designation | (20) General Agriculture Designation |
|---|---|---|---|---|---|
| Alpine | 68,136 | 24,983 | 31,513 | 0 | 13,424 |
| Bonsall | 21,037 | 10,718 | 283 | 2,863 | 70 |
| Central Mountain | 203,310 | 5,854 | 22,848 | 0 | 0 |
| County Islands | 520 | 12 | 50 | 0 | 0 |
| Crest/Dehesa | 20,227 | 5,717 | 7,765 | 0 | 214 |
| Desert | 599,107 | 43 | 48,768 | 0 | 32,433 |
| Fallbrook | 36,094 | 25,984 | 1,721 | 108 | 1,375 |
| Jamul/Dulzura | 107,348 | 4,546 | 86,911 | 52 | 14,193 |
| Julian | 33,385 | 11,539 | 19,077 | 11,893 | 7,400 |
| Lakeside | 46,043 | 20,644 | 1,874 | 2,074 | 388 |
| Mountain Empire | 303,906 | 2,408 | 56,808 | 0 | 25,293 |
| North County Metro | 56,163 | 20,811 | 8,094 | 3,672 | 8,885 |
| North Mountain | 311,775 | 43,809 | 84,519 | 0 | 37,765 |
| Otay | 28,432 | 35 | 4 | 0 | 0 |
| Pala/Pauma | 73,692 | 30,443 | 14,812 | 4,226 | 18,469 |
| Pendleton/De Luz | 163,302 | 14,565 | 14,380 | 0 | 0 |
| Rainbow | 9,660 | 9,028 | 0 | 647 | 408 |
| Ramona | 83,995 | 40,070 | 26,331 | 8,129 | 26,218 |
| San Dieguito | 30,025 | 1,119 | 0 | 0 | 0 |
| Spring Valley | 7,479 | 791 | 106 | 0 | 0 |
| Sweetwater | 8,910 | 610 | 0 | 0 | 0 |
| Valle De Oro | 13,137 | 1,497 | 342 | 28 | 391 |
| Valley Center | 55,233 | 37,924 | 4,470 | 770 | 6,581 |
| **Totals** | **2,280,916** | **313,150** | **430,676** | **34,462** | **193,507** |

Note: All data is represented as acreage; Data has been rounded to nearest whole number.
Source: SanGIS 2008

## Table 2.2-10. Existing Agricultural Preserves and Williamson Act Contract Lands

| CPA or Subregion | Agricultural Preserves (acres) | Williamson Act Contracts (acres) |
|---|---|---|
| Alpine CPA | 13,417 | 1,428 |
| Bonsall CPA | 303 | 69 |
| Central Mountain Subregion – Remainder | 30,113 | 2,660 |
| Central Mountain Subregion – Cuyamaca | 11,315 | 3,946 |
| Central Mountain Subregion – Descanso | 663 | 1 |
| Central Mountain Subregion – Pine Valley | 62,069 | 9,696 |
| Crest/Dehesa Subregion | 219 | 43 |
| Desert Subregion | 48,777 | 3,007 |
| Fallbrook CPA | 1,972 | 593 |
| Jamul/Dulzura Subregion | 31,157 | 3,289 |
| Julian CPA | 18,433 | 5,352 |
| Lakeside CPA | 402 | 394 |
| Mountain Empire- Lake Morena/Campo | 16,135 | 901 |
| Mountain Empire Subregion – Jacumba | 19 | 0 |
| Mountain Empire Subregion – Boulevard | 9,262 | 225 |
| Mountain Empire Subregion – Potrero | 10,317 | 58 |
| Mountain Empire – remainder | 19,847 | 679 |
| North County Metro Subregion – Hidden Meadows | 335 | 111 |
| North County Metro Subregion – remainder | 8,674 | 683 |
| North Mountain Subregion – Palomar Mountain | 11,813 | 3,978 |
| North Mountain Subregion – remainder | 48,420 | 31,280 |
| Pala/Pauma Valley Subregion | 20,301 | 2,326 |
| Pendleton/De Luz CPA | 500 | 326 |
| Rainbow CPA | 663 | 293 |
| Ramona CPA | 26,114 | 5,401 |
| San Dieguito CPA | 3,071 | 0 |
| North County Metro Subregion – Twin Oaks | 181 | 31 |
| Valle De Oro CPA | 316 | 171 |
| Valley Center CPA | 7,290 | 3,566 |
| **Total** | **402,098** | **80,507** |

Note: Data has been rounded to nearest whole number.
Source: SanGIS 2008

## Table 2.2-11. Proposed Land Uses in Areas of Agricultural Resources

| Proposed General Plan Update Land Use Designation | Grazing Lands (acres) | | Cropland (acres) | | | Total Acres |
|---|---|---|---|---|---|---|
| | Field Crops | Grazing Lands | Intensive Agriculture | Orchards and Vineyards | Truck Crops | |
| General Commercial | 103 | 27 | 0 | 37 | 26 | 193 |
| High Impact Industrial | 20 | 124 | 13 | 0 | 11 | 168 |
| Limited Impact Industrial | 44 | 92 | 4 | 46 | 13 | 199 |
| Medium Impact Industrial | 71 | 12 | 0 | 8 | 12 | 103 |
| Military Installations | 65 | 21,099 | 0 | 8 | 1,580 | 22,752 |
| State and Federal Lands | 71 | 68,239 | 0 | 141 | 1 | 68,452 |
| Neighborhood Commercial | 18 | 10 | 3 | 17 | 2 | 50 |
| Office Professional | 0 | 4 | 0 | 0 | 3 | 7 |
| Open Space (Conservation) | 1,135 | 102,534 | 32 | 475 | 317 | 104,493 |
| Open Space (Recreation) | 6 | 152 | 48 | 43 | 40 | 289 |
| Public/Semi-Public Facilities | 312 | 3,224 | 69 | 972 | 447 | 5,024 |
| Rural Commercial | 48 | 57 | 6 | 67 | 86 | 264 |
| Rural Lands (RL-20) | 829 | 14,736 | 183 | 20,774 | 1,596 | 38,118 |
| Rural Lands (RL-40) | 5,630 | 34,967 | 401 | 5,822 | 2,755 | 49,575 |
| Rural Lands (RL-80) | 800 | 5,720 | 1 | 36 | 91 | 6,648 |
| Rural Lands (RL-160) | 0 | 0 | 0 | 0 | 0 | 0 |
| Semi-rural Residential (SR-1) | 814 | 2,548 | 143 | 4,143 | 794 | 8,442 |
| Semi-rural Residential (SR-2) | 1,294 | 7,159 | 455 | 21,523 | 2,678 | 33,109 |
| Semi-rural Residential (SR-4) | 1,101 | 6,745 | 291 | 12,355 | 2,895 | 23,387 |
| Semi-rural Residential (SR-10) | 1,447 | 6,442 | 250 | 13,421 | 2,263 | 23,824 |
| Specific Plan Area | 459 | 10,895 | 130 | 1,245 | 354 | 13,083 |
| Tribal Lands | 370 | 3,888 | 9 | 562 | 74 | 4,903 |
| Village Core Mixed Use | 1 | 4 | 36 | 8 | 8 | 57 |
| Village Residential (VR-10.9) | 12 | 17 | 0 | 14 | 0 | 43 |
| Village Residential (VR-15) | 65 | 30 | 6 | 26 | 9 | 136 |
| Village Residential(VR-2) | 320 | 699 | 46 | 766 | 436 | 2,267 |
| Village Residential (VR-2.9) | 99 | 233 | 24 | 237 | 72 | 665 |
| Village Residential (VR-24) | 6 | 1 | 0 | 8 | 0 | 15 |
| Village Residential (VR-30) | 5 | 0 | 0 | 0 | 22 | 27 |
| Village Residential (VR-4.3) | 84 | 223 | 16 | 132 | 395 | 850 |
| Village Residential (VR-7.3) | 88 | 148 | 16 | 194 | 12 | 458 |
| **Total** | **15,317** | **290,029** | **2,182** | **83,080** | **16,992** | **407,600** |

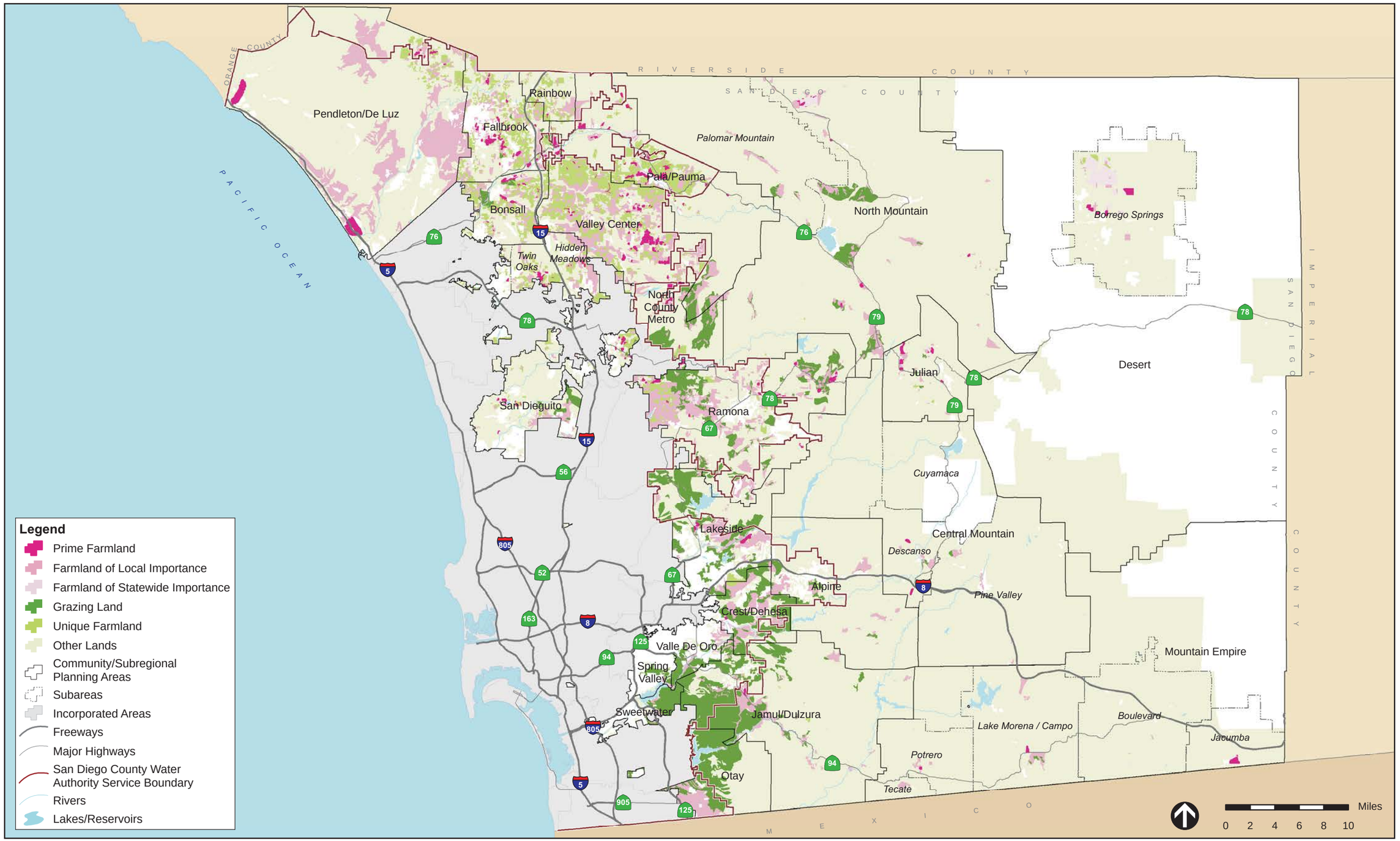
Note: Data has been rounded to nearest whole number.
Source: SanGIS 2008

## Table 2.2-12. Proposed General Plan Update Land Use Designations in Agricultural Zoning Areas

| General Plan Update Land Use Designation | Zoning Area | Acres |
|---|---|---|
| General Commercial | A70 | 25 |
| High Impact Industrial | A70 | 74 |
| Limited Impact Industrial | A70 | 105 |
| Medium Impact Industrial | A70 | 268 |
| Neighborhood Commercial | A70 | 26 |
| Office Professional | A70 | 25 |
| Open Space (Conservation) | A70 | 21,362 |
| Open Space (Recreation) | A70 | 2,352 |
| Public/Semi-Public Facilities | A70 | 5,131 |
| Rural Commercial | A70 | 165 |
| Rural Lands (RL-20) | A70 | 51,335 |
| Rural Lands (RL-40) | A70 | 87,535 |
| Rural Lands (RL-80) | A70 | 3,123 |
| Semi-rural Residential (SR-4) | A70 | 120,958 |
| Specific Plan Area | A70 | 658 |
| Village Residential (VR-7.3) | A70 | 4,556 |
| **Subtotal A70** | | **297,698** |
| General Commercial | A72 | 1 |
| Medium Impact Industrial | A72 | 1 |
| Neighborhood Commercial | A72 | 2 |
| Open Space (Recreation) | A72 | 146,465 |
| Public/Semi-Public Facilities | A72 | 1,981 |
| Rural Commercial | A72 | 4 |
| Rural Lands (RL-80) | A72 | 171,971 |
| Semi-rural Residential (SR-4) | A72 | 20,096 |
| Specific Plan Area | A72 | 323 |
| Village Residential (VR-7.3) | A72 | 110 |
| **Subtotal A72** | | **340,954** |
| **Total** | | **638,652** |

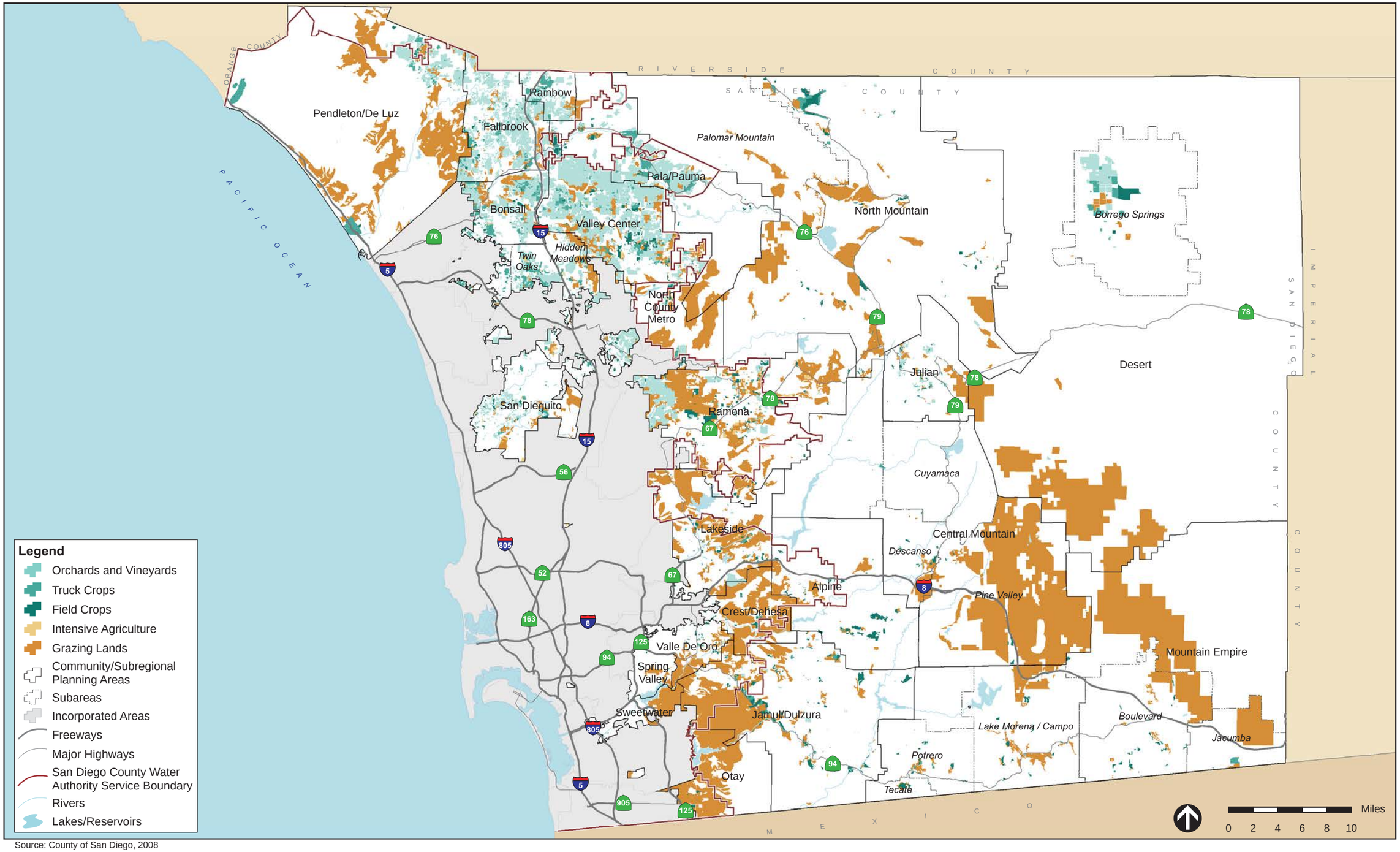
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

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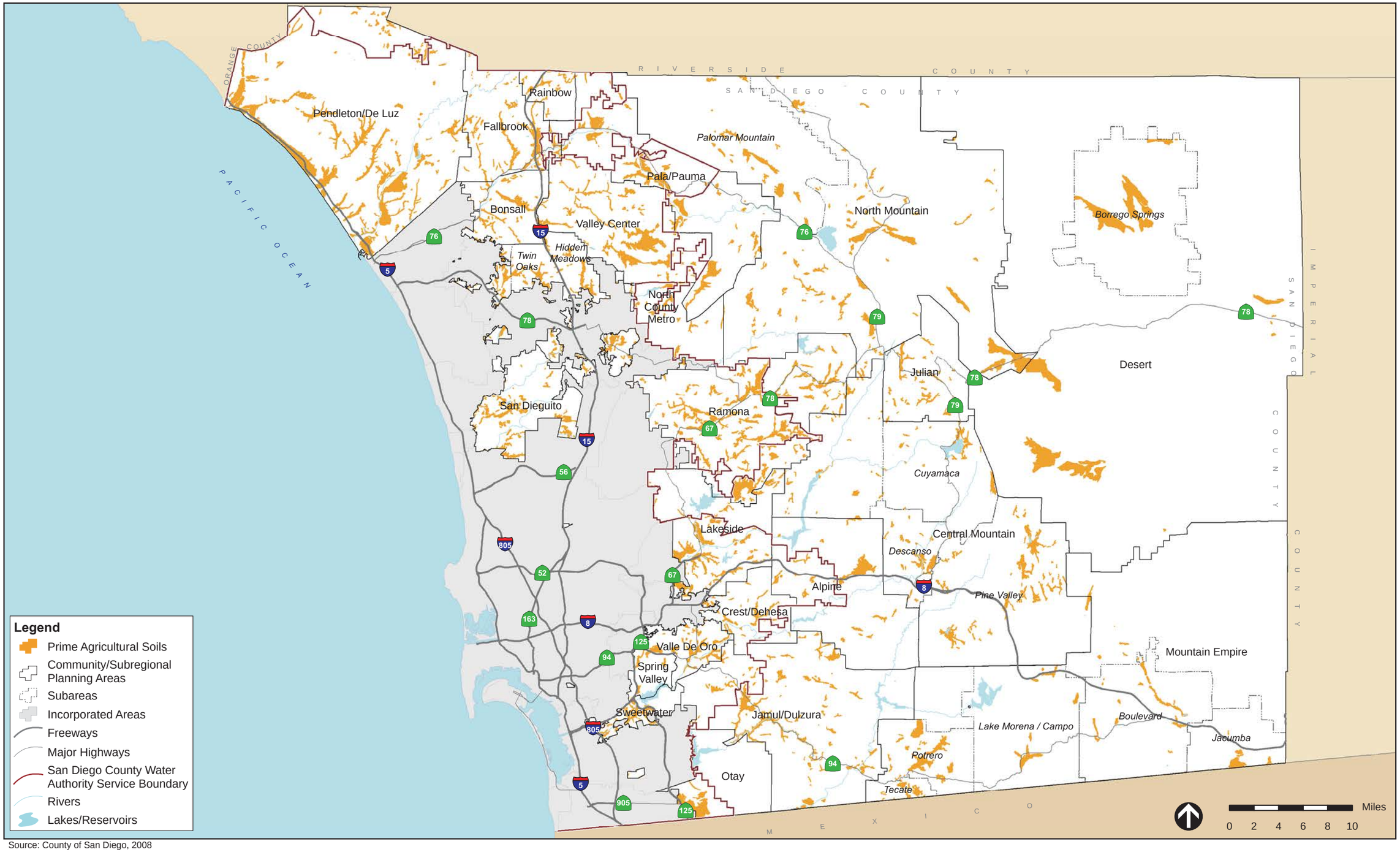

Source: FMMP, 2004; County of San Diego, 2008

**FARMLAND MAPPING AND MONITORING PROGRAM LANDS** **FIGURE 2.2-1**




Source: County of San Diego, 2008

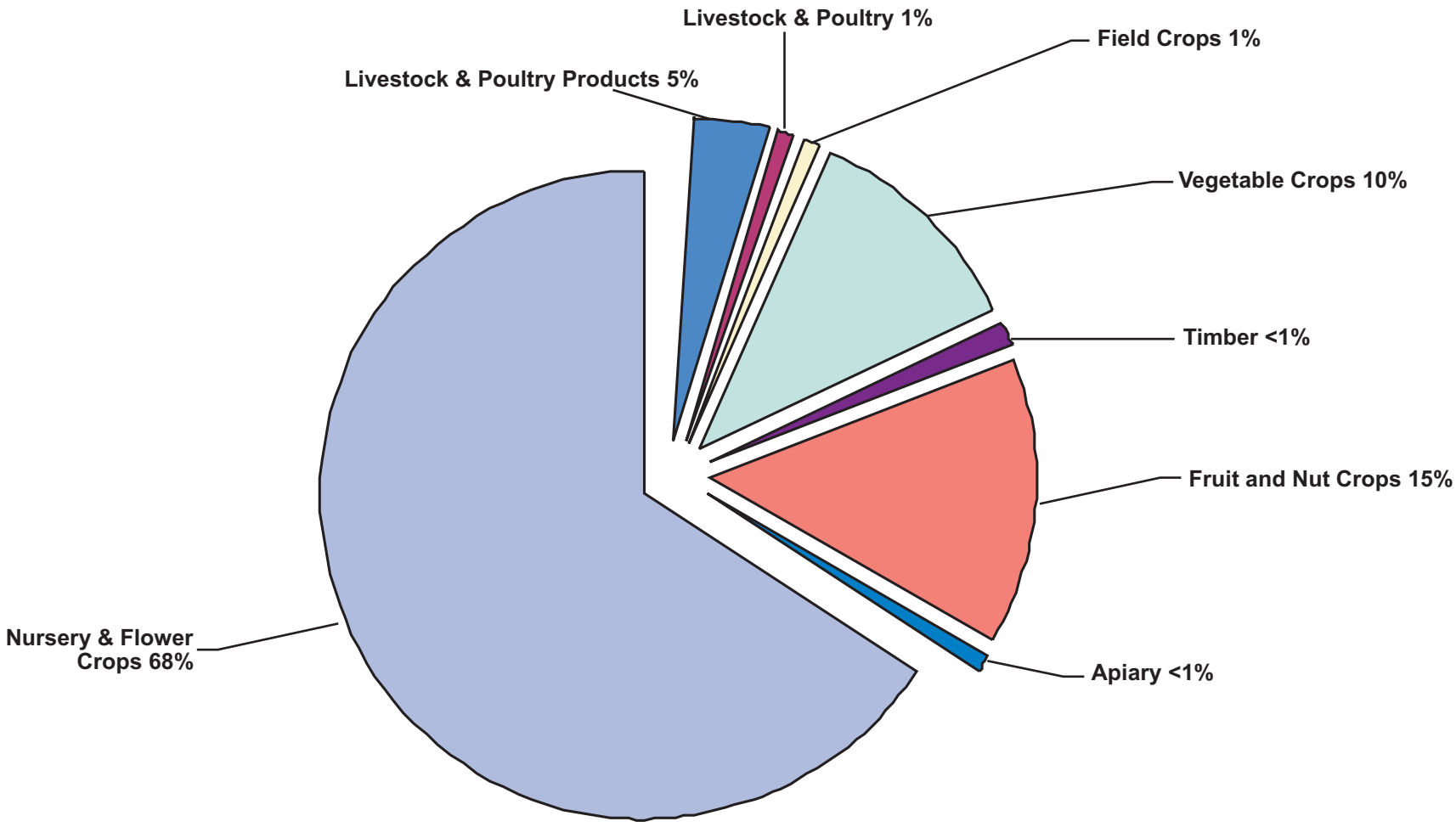
**COUNTY IDENTIFIED AGRICULTURAL LANDS** **FIGURE 2.2-2**




Source: County of San Diego, 2008

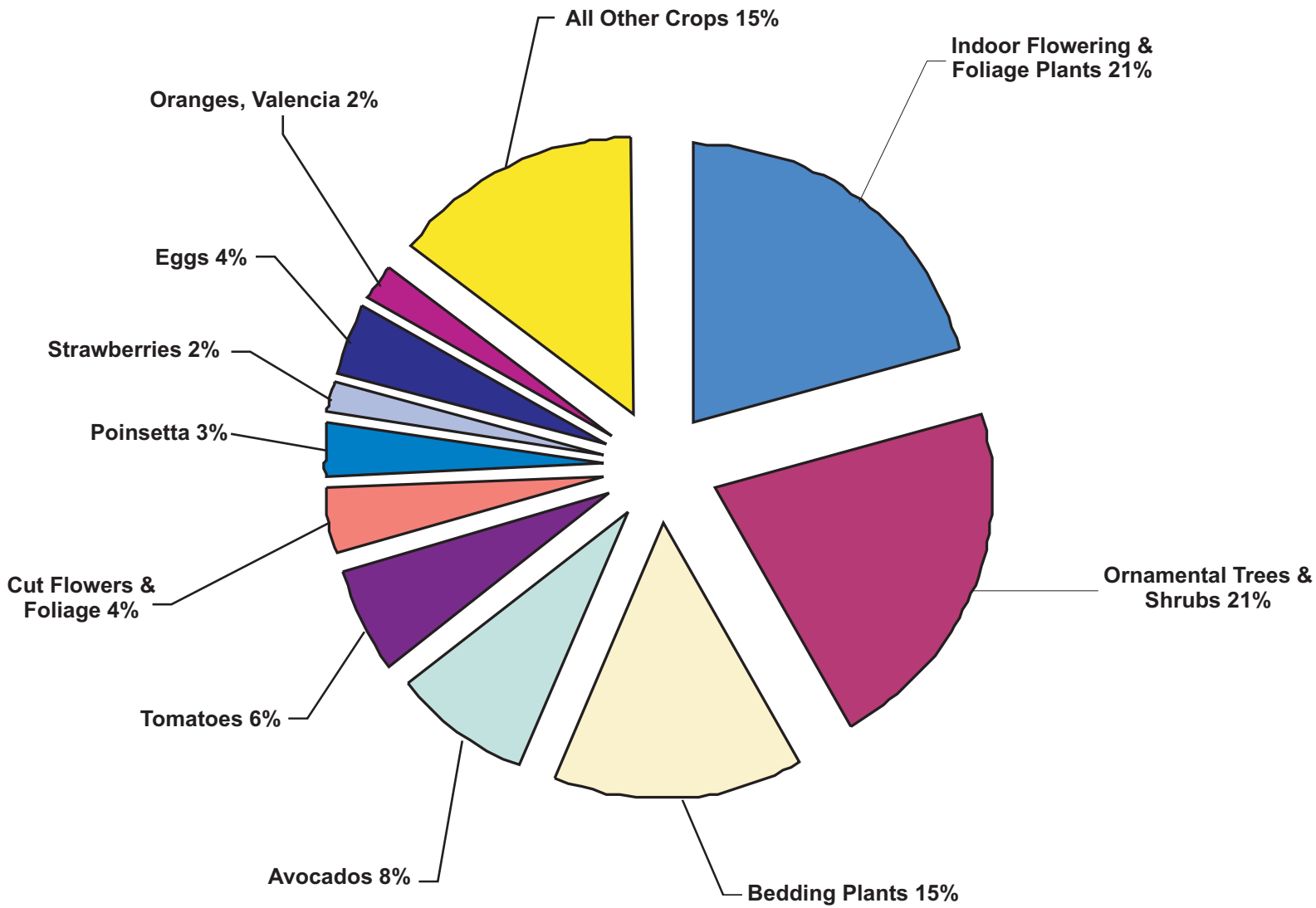
## PRIME AGRICULTURAL SOILS

## FIGURE 2.2-3



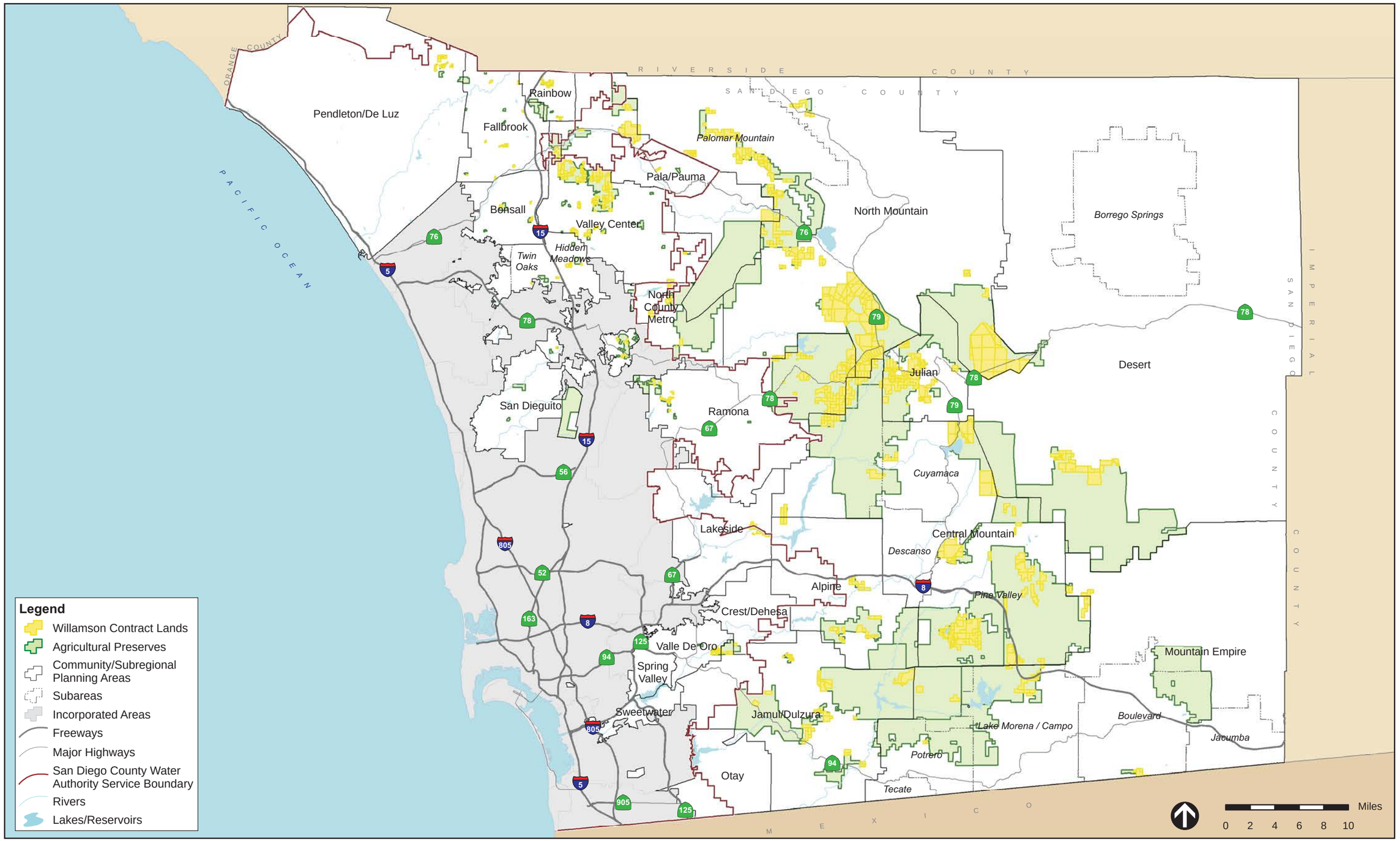

SOURCE: AWM, 2008

**2007 MAJOR CROP CATEGORIES FROM SAN DIEGO COUNTY** **FIGURE 2.2-4**



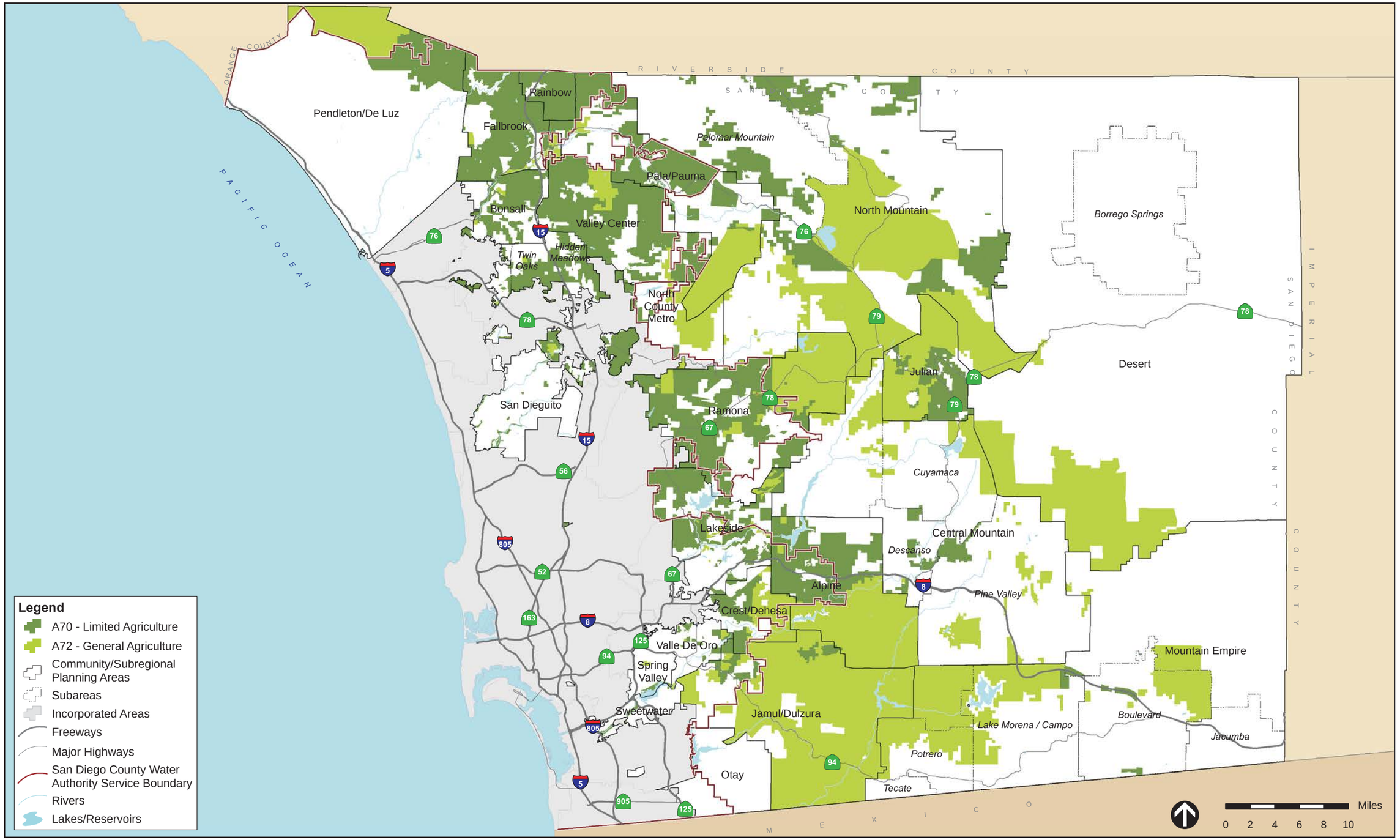

SOURCE: AWM, 2008

**TOP TEN CROPS FOR 2007** **FIGURE 2.2-5**




Source: County of San Diego, 2007

**AGRICULTURAL PRESERVES AND WILLIAMSON ACT CONTRACT LANDS** **FIGURE 2.2-6**




Source: County of San Diego, 2008

## AGRICULTURAL ZONING MAP

## FIGURE 2.2-7

# 2.3 Air Quality

This section of the EIR evaluates the potential for impacts to air quality and climate change associated with implementation of the County of San Diego General Plan Update. It examines the existing air quality in the County, evaluates County-wide and regional air quality impacts, and identifies mitigation measures to lessen those impacts. The information in this section was based on the County of San Diego General Plan Update Conservation and Open Space Element Background Report (DPLU 2007b), County of San Diego Guidelines for Determining Significance, Air Quality (DPLU 2007g), and the Air Quality Technical Report prepared by Scientific Resources Associated (SRA 2009), included as Appendix B to this EIR. Analysis regarding unincorporated County of San Diego greenhouse gas emissions and the potential for the proposed General Plan Update to conflict with the goals and strategies of AB 32 is discussed in Section 2.17, Global Climate Change of this EIR.

A summary of the impacts to air quality identified in Section 2.5.3 is provided below.

**Air Quality Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Air Quality Plans | Less Than Significant | Less Than Significant | Less Than Significant |
| 2 | Air Quality Violations | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 3 | Non-Attainment Criteria Pollutants | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 4 | Sensitive Receptors | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 5 | Objectionable Odors | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.3.1 Existing Conditions

Air pollution is a general term used to describe undesirable amounts of particulate or gaseous matter in the atmosphere. Air pollution can be natural or human-made. It occurs naturally during volcanic eruptions, forest fires, and dust storms and has been an occasional problem for humans over time. However, during the past one hundred years, air pollution created by humans has become a major, persistent public health problem.

### *2.3.1.1 Meteorology and Climate*

The unincorporated portion of the County of San Diego is located in the San Diego Air Basin (SDAB). The boundaries of the SDAB are contiguous with the political boundaries of San Diego County, and encompasses approximately 4,260 square miles. The County is divided by the Laguna Mountain Range which runs generally parallel to the coast approximately 45 miles inland and separates the coastal area from the desert area. The Laguna Mountains have peaks reaching over 6,000 feet, with the highest point in the County being Hot Springs Mountain rising to 6,533 feet. The coastal region is made up of coastal terraces that rise from the ocean into wide mesas that then transition into the Laguna foothills farther to the east. From the foothills, the topography gradually rises to the rugged Laguna Mountain range. On the east side, the mountains drop off rapidly to the Anza-Borrego Desert, which is characterized by several broken

mountain ranges with desert valleys in between. The Santa Ana Mountains are located north of the County along the coast of Orange County before turning east to join with the Laguna Mountains near the San Diego-Orange County border.

Given the diverse nature of the microclimates that exist in San Diego County, only a general discussion of the meteorological conditions that affect the entire air basin is provided in this section. The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The combination of topography and climate influence air quality in the SDAB and are constraints to efforts to reduce air pollution in the region. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. This warm upper layer forms a cap over the cool marine layer and inhibits pollutants in the marine layer from dispersing away from the surface. In addition, light winds during the summer further limit ventilation. The SDAB experiences more days of sunlight than many other urban areas in the nation, and sunlight triggers the photochemical reactions that produce ozone ($O_3$), a criteria pollutant as described in Section 2.3.1.3.

### *2.3.1.2 Measuring Air Quality*

Air quality at a given location can be described by units of concentration that are generally expressed in parts per million (ppm) or micrograms per cubic meter (µg/m3). The significance of a pollutant concentration is typically determined by comparing the concentration to ambient air quality standards (AAQS), described below. The standards represent the allowable atmospheric concentrations at which the public health and welfare are protected, and include a reasonable margin of safety to protect the more sensitive receptors in the population. Sensitive receptors are defined by air quality regulators as schools (preschool through 12$^{th}$ grade), hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The County of San Diego also includes residences in the definition of sensitive receptors. Table 2.3-1 describes the Air Quality Index Levels of Health Concern that are used to indicate current air quality conditions in an area.

### *2.3.1.3 Ambient Air Quality Standards*

Air quality is defined by ambient air concentrations of specific pollutants identified by the U.S. Environmental Protection Agency (EPA) to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

The CAA allows states to adopt AAQS and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (CARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) through the California CAA of

1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide ($H_2S$), vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant.

**Criteria Pollutants**

NAAQS have been established for the following seven pollutants: $O_3$; Respirable Particulate Matter ($PM_{10}$); Fine Particulate Matter ($PM_{2.5}$); Carbon Monoxide (CO); Nitrogen Dioxide ($NO_2$); Lead (Pb); and Sulfur Dioxide ($SO_2$). These pollutants are commonly known as "criteria" pollutants because their standards are based on certain criteria regarding impacts to health and human welfare. In addition to the seven pollutant standards established by NAAQS, the CAAQS has also established pollutant standards for the following pollutants of concern: Sulfates ($SO_4^{2}$), $H_2S$, Vinyl Chloride, and Visibility Reducing Particulates. Table 2.3-2 lists the NAAQS and CAAQS. Table 2.3-3 contains a list of typical sources of each of the criteria pollutants, its recognized health effects, and the typical controls applied for each pollutant.

$O_3$ is not emitted directly, but is formed in the atmosphere through complex chemical reactions between nitrogen oxides and hydrocarbons in the presence of sunlight. These substances are therefore considered as $O_3$ precursors. Hydrocarbon is a general term to described compounds comprised of hydrogen and carbon atoms. Hydrocarbons are classified as to how photochemically reactive they are in the atmosphere, which provides a measure of their potential to contribute to ambient $O_3$ concentrations. Reactive organic gases (ROGs), also referred to as VOCs, is a term that is used to describe those hydrocarbons that are most chemically reactive, and are the primary pollutants of concern. The main sources of ROG in the SDAB include motor vehicle emissions and evaporative sources, including solvents and paints. Pesticide use, industrial processes, and non-highway mobile sources (such as construction equipment or aircraft) are also contributors to regional $O_3$ problems.

$PM_{10}$ and $PM_{2.5}$ emissions come from a broad range of sources. Sources of $PM_{10}$ include those emissions associated with on-road vehicles (including vehicle exhaust and re-entrained road dust), as well as natural wind-blown dust and activities that cause surface disturbance such as grading and agricultural operations. $PM_{2.5}$ is a result of direct emissions from these sources, but is also formed through complex secondary reactions in the atmosphere.

**Toxic Air Contaminants (TACs)**

Table 2.3-3 also provides a general description of TACs, a category of pollutants for which specific federal or State AAQS have not been established. TACs include pollutants known or suspected to cause cancer or other adverse health effects such as respiratory irritation or reproductive effects. The regulatory structure for TACs is different than for criteria pollutants. Regulatory standards for most TACs consider the levels of public health risk from exposure, rather than specific concentrations of the pollutant.

### *2.3.1.4 San Diego Air Basin Attainment Status*

The EPA designates all areas of the U.S. as having air quality better than the NAAQS (attainment), worse than the NAAQS (non-attainment), or "unclassified" in areas where insufficient data exists. An area or region is designated in attainment for a particular pollutant

when it is in compliance with an air quality standard for that pollutant. A non-attainment designation means that a primary NAAQS has been exceeded in a given area for a certain amount of time depending on the pollutant. Pollutants in an area are often designated as unclassified when there is a lack of data for the EPA to form a basis of attainment status. Just as the EPA designates air basins as being in "attainment" or "non-attainment" of the NAAQS, the CARB designates areas of the State as either in attainment or non-attainment of the CAAQS.

The San Diego Air Pollution Control District (APCD) operates and maintains ten monitoring stations located throughout the San Diego region. The purpose of these stations is to measure ambient concentrations of criteria pollutants and determine whether the ambient air quality meets the NAAQS and CAAQS. The stations are located in Alpine, Camp Pendleton, Chula Vista, Del Mar, El Cajon, Escondido, Kearny Mesa, Otay Mesa, and two in downtown San Diego. The location of these stations and annual average $PM_{10}$ emissions at each station are shown on Figure 2.3-1. Data from the ambient air monitoring stations are summarized in the APCD's Annual Report. The most recently published report is the 2007 Annual Report, which provides information on the number of days exceeding the NAAQS and CAAQS for each pollutant at each monitoring station that the pollutant is measured, and the maximum ambient concentrations measured. The monitoring data for the SDAB is summarized in Table 2.3-4.

San Diego County is currently designated as an attainment area for CO, $NO_2$, Pb, $SO_2$, and $SO_4^{2-}$. The SDAB has not violated the annual NAAQS for $NO_2$ since 1978 and has not violated the one-hour CAAQS for $NO_2$ since 1988; and has never recorded violations of the $SO_2$ standard. Federal standards for Pb have not been exceeded since 1980, and State standards for Pb have not been exceeded since 1987. The SDAB was once a non-attainment area for CO, but has not violated the CO standard since 1990. When an area is reclassified from non-attainment to attainment, it becomes a "maintenance" area, and a maintenance plan must be prepared and implemented. The SDAB is a maintenance area for CO and is included in the California State Implementation Plan (SIP) for CO, revised in 2004, which documents how ten areas of the State, including the SDAB, will continue to maintain compliance with the CO standards.

The county is a non-attainment area for $O_3$ and $PM_{10}$, and $PM_{2.5}$. As identified in Table 2.3-2, the federal 8-hour $O_3$ standard is 0.075 ppm (147 $\mu g/m^3$). There is no 1-hour federal $O_3$ standard. The State 1-hour $O_3$ standard is 0.09 ppm (180 $\mu g/m^3$) and the 8-hour standard is 0.070 ppm (137 $\mu g/m^3$). Over the past several years, San Diego County has experienced substantial improvement in ambient $O_3$ levels according to data collected at the monitoring stations. The number of days above the State 1-hour standard has decreased from 139 days in 1990 to 16 days in 2005. According to the APCD's 2007 Annual Report, San Diego County reached a major milestone when it was redesignated in 2003 as an attainment area for the federal 1-hour $O_3$ standard prior to that standard being revoked in 2005. The region still has not met the more restrictive one-hour CAAQS for $O_3$, or the federal or State 8-hour $O_3$ standards. $O_3$ concentrations have declined significantly during the past 20 years, along with the number of days each year that the air basin exceeds the CAAQS and NAAQS. Prior to the wildfires that occurred in October 2007, $O_3$ levels declined during summer 2007 except for one very warm Saturday during Labor Day weekend in Alpine. On this day, September 1, 2007, $O_3$ levels reached 13.4 parts per hundred million (pphm), which was the highest concentration recorded in six years. A health advisory is issued when $O_3$ levels reach 15 pphm. The last health advisory for $O_3$ occurred in July 1998.

With the exception of the wildfires that occurred in October 2003 and 2007, particulate matter levels in the SDAB have also improved. The annual average has declined approximately 25 percent since 1986, the earliest year with comparable particulate measurements. This is in part due to reductions in emissions of $O_3$ precursors, which also contribute to the formation of fine particulates.

The federal 24-hour standard for $PM_{10}$ is 150 $\mu g/m^3$. The State 24-hour standard is 50 $\mu g/m^3$ and the annual arithmetic mean standard is 20 $\mu g/m^3$. The federal standard for $PM_{10}$ has not been exceeded enough times for the SDAB to be considered in non-attainment. However, the stricter State standards for $PM_{10}$ have not been met in San Diego County or in most other parts of California; therefore, these areas are considered to be in non-attainment for the State $PM_{10}$ standards.

The EPA created a new standard targeting particle matter 2.5 microns or less in diameter in 1997 based on medical studies showing the tiny particles could lodge deeply into the lungs. The federal 24-hour standard for $PM_{2.5}$ is 35 $\mu g/m^3$ and the annual arithmetic mean standard is 15 $\mu g/m^3$. There is no separate State 24-hour standard, but the State annual arithmetic mean standard is 12 $\mu g/m^3$. In 2005, the EPA designated San Diego County as an attainment area for the federal $PM_{2.5}$ standard. However, during this same time, the County was in non-attainment for the State $PM_{2.5}$ standard.

A complete listing of the current attainment status by pollutant for San Diego County is shown on Table 2.3-5. Table 2.3-6 provides a list of the primary source categories of emissions that contribute to air pollution. As identified in this table, mobile, stationary, area-wide and natural sources are the major source of air pollution in San Diego County.

### *2.3.1.5 Regional Air Quality Strategies*

As discussed above, air quality in San Diego County does not meet State and federal health standards for $O_3$ or the State standard for particulate matter. On-road motor vehicles (car, trucks and buses) are responsible for approximately 60 percent of regional smog-forming emissions. However, off-road sources such as utility engines, construction and farm equipment, ships, planes, trains, and off-highway recreational vehicles are also significant sources.

Since 1976, vehicle travel within the County has grown faster than the rate of population growth. This trend is observed nationally and attributed to several factors including population demographics, more women in the workforce, travel preferences, tax policies, and land markets. The outcome of these factors is the strict separation of land uses seen in most suburbs, which result in more vehicle trips and longer trip distances. Additionally, during the last 60 years, new land uses have been arranged in a low- density pattern, fostering almost complete dependence on automobiles for transportation. This dependence has resulted in traffic congestion and air quality problems throughout the County.

One of the only remaining approaches for large emissions reductions that the government has is to focus on measures that would reduce the number of vehicle trips. The State and federal governments have recognized the problems caused by vehicular emissions and have placed stronger emphasis on programs to change travel behavior. For example, since 1991, more State and federal funding has been designated for pedestrian and bicycle facilities. States have been given discretion to use certain federal highway funds for pedestrian, bicycle, and transit

facilities. The 1990 CAA Amendments required employer-based ridesharing, though these were later repealed as cost- ineffective. At the local level, municipal governments, acting through SANDAG, have created a regional system to address eroding quality of life factors including air quality and traffic congestion.

While emissions levels of criteria pollutants in the SDAB have been decreasing overall since 1990 (with the exception of particulate matter), as described below, air pollutants still have the potential to result in human health impacts to sensitive receptors. For instance, even with the best available control technology (BACT), some projects that are sited very close to homes, schools, and other public places can result in elevated air pollution exposures. The reverse is also true. Siting a new school or home too close to an existing source of air pollution can pose a public health risk.

### *2.3.1.6 Toxic Air Contaminants in the San Diego Air Basin*

As described above, TACs can have serious adverse health effects and are controlled under a different regulatory process than criteria pollutants. Of particular concern are cancer-causing pollutants. Because no safe level of emissions can be established for TACs region-wide, the regulation of TACs is based on the levels of cancer risk and other health risks posed to persons who may be exposed.

Based on 2006 estimates from the APCD, inventoried stationary sources of TACs emit more than 2.4 million pounds of TACs annually. These sources included industrial, commercial, and governmental facilities. Although TAC emissions from stationary sources in San Diego County have been reduced by approximately 82 percent since 1989, large amounts of toxic compounds are still emitted into the air from a wide variety of sources including motor vehicles, industrial facilities, household products, area sources, and natural processes. Motor vehicles and natural sources emit more than 26 million pounds per year (APCD 2007a). Prioritizing and reducing these emissions further will require a continued, cooperative effort by the public, industry, environmental groups, CARB, and APCD.

Local emissions of TACs from industrial sources have decreased approximately 82 percent since 1989. The APCD monitors TACs at two sites in the SDAB: El Cajon and Chula Vista. Based on data from these monitoring stations, incremental cancer risk from exposure to TACs has steadily decreased since monitoring began in 1989.

Diesel particulates are also emitted from mobile sources such as traffic and temporary construction equipment. Diesel particulates contribute significantly to ambient cancer risk levels. Although no method exists to directly monitor diesel particulate concentrations, CARB has suggested methods that can be used to estimate diesel concentrations. Based on CARB estimates, diesel particulate emissions could add an additional 420 in one million to the ambient health risk levels in San Diego County. CARB estimates that health risk from diesel particulate has decreased by approximately 50 percent between 1990 and 2006 (APCD 2007a).

APCD continues to work with the operators of regulated stationary sources to produce more comprehensive and accurate emissions inventories. With the release of CARB's health risk assessment (HRA) software, the APCD is able to quantitatively evaluate HRAs and continues to modify priorities based on the recently approved inventories. Ongoing implementation of toxic air contaminant control programs such as the Air Toxics "Hot Spots" Program, District Rules

1200 (Toxic Air Contaminants - New Source Review) and 1210 (Toxic Air Contaminant Public Health Risks - Public Notification and Risk Reduction) serve to reduce local public health risks associated with emissions of TACs. Those efforts also improve information on levels of exposure and risk as well as identify the compounds, processes, and facilities that are potentially causing significant risks. Additionally, the APCD continues to implement State diesel engine air toxic control measures which significantly reduce public risk from exposure to diesel engine particulate matter. Measures to reduce vehicle trips and miles traveled reduce toxic emissions which result from the burning gasoline. Finally, measures to reduce emissions of volatile organic compounds (VOCs) as $O_3$ precursors also decrease emissions of toxic VOCs.

### *2.3.1.7 Greenhouse Gases (GHG)*

Gases that trap heat in the atmosphere come from both natural and human activities. GHG emissions produced from natural sources serve as an agent to warm the Earth's surface. Human-produced GHG emissions (i.e., emissions from electricity production and vehicles) have also been shown to elevate the concentration of emissions levels in the atmosphere above normal standards. These gases have varying atmospheric lifetimes in which they serve as a potential contributor to increased heat insulation and poor air quality. Examples of GHGs include water vapor, carbon dioxide, methane, nitrous oxides ($NO_X$), chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, $O_3$, and aerosols.

California has produced legislation that has sought to cut GHG emissions throughout the State. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings allow for the incorporation of new energy efficiency technologies and methods to minimize usage in buildings. Governor Arnold Schwarzenegger's Executive Order S-3-05 seeks to ultimately reduce GHG emissions 80 percent below 1990 levels by 2050. In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. By focusing on reducing GHG in California, Assembly Bill (AB) 32 requires CARB to regulate statewide air quality through adopting statewide regulations to achieve GHG equivalent to levels in 1990 by 2020.

The County of San Diego has taken the initiative to regulate sources of air pollution within its jurisdiction that are sources of GHG emissions through implementation of AB 32 and SB 375. AB 32 requires the CARB to prepare a Scoping Plan to achieve reductions in GHG emissions in California. SB 375 requires metropolitan planning organizations (MPOs) to include strategies for sustainable communities, as defined, in their regional transportation plans (RTPs) for the purpose of reducing greenhouse gas emissions, to align planning for transportation and housing, and create specified incentives for the implementation of the strategies. As a part of SB 375, CARB is required to establish GHG emission reduction targets for each region (as opposed to individual cities or households) and to review the region's determination that its plan achieves those targets. The County's compliance with AB 32 is discussed in detail in Section 2.17.3.1, Issue 1: Compliance with AB 32. The County will be working with SANDAG in developing the new RTP expected to be complete by 2011, to ensure the goals of SB 375 are met for our region.

## 2.3.2 Regulatory Framework

### *2.3.2.1 Federal*

**Federal Clean Air Act (CAA)**

The CAA was enacted in 1970 and amended in 1977 and 1990 [42 U.S.C. 7506(c)] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. The CAA, in Section 107(d), provides the designations "non-attainment," "attainment," and "unclassifiable" to describe the long-term, ambient air quality of a particular region.

In 1971, in order to achieve the purposes of Section 109 of the CAA, the EPA developed primary and secondary national AAQS, shown in Table 2.3-2. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Seven pollutants of primary concern ("criteria pollutants") were designated: $O_3$, CO, $SO_2$, $NO_2$, Pb, $PM_{2.5,}$ and $PM_{10}$. If an air basin is not in attainment of federal standards for $O_3$, the basin is classified as marginal, moderate, serious, severe, or extreme. In 2003, the SDAB was classified as an attainment area for the one-hour NAAQS for $O_3$. In 2004, the SDAB was designated as a "basic" non-attainment area for the 8-hour NAAQS federal standard for $O_3$.

**National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Program**

Under federal law, 188 substances are listed as Hazardous Air Pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the NESHAPS program. The EPA is establishing regulatory schemes for specific source categories, and requires implementation of Maximum Achievable Control Technologies (MACTs) for major sources of HAPs in each source category. State law has established the framework for California's toxic air contaminant identification and control program, which is generally more stringent than the federal program, and is aimed at HAPs that are a problem in California. The State has formally identified more than 200 substances as TACs, and is adopting appropriate control measures for each. Once adopted at the State level, each district will be required to adopt a measure that is equally or more stringent.

**New Source Review (NSR) and Prevention of Significant Deterioration (PSD)**

Federal and State law requires that air districts in non-attainment areas conduct NSR prior to permitting "major" sources, or modifying existing "major" sources. The purpose of NSR is to allow continued industrial growth in non-attainment areas and, at the same time, ensure that new and modified sources do not aggravate existing air quality problems and/or negate emissions reductions from other sources.

The SIP for the SDAB also requires non-major sources to undergo NSR. Under NSR, all existing and new stationary sources of emissions are required to conduct a BACT analysis to evaluate the feasibility of implementing emission control devices. In some instances, new sources have to offset their own emission increases using Emission Reduction Credits (ERCs). In general, technological feasibility, economic, environmental, and energy issues must be taken into account when determining the applicable appropriate control technology.

In addition, Rule 20 provides for the protection of Class I Airsheds. Class I Airsheds are federal protected lands designated under Title I, Part C of the CAA. The object of the PSD regulations is to prevent deterioration of air quality within attainment areas. Federal PSD regulations state that major sources of air pollution may not impact a Class I Airshed within 100 km of it. As of 2008, there were six Class I Airsheds within 100 km of San Diego County, with only one, the Agua Tibia National Wilderness Area, within the boundaries San Diego County.

### *2.3.2.2 State*

**California Clean Air Act (CAA)**

The CAA allows states to adopt AAQS and other regulations provided they are at least as stringent as federal standards. The CARB has established the more stringent CAAQS for the criteria pollutants through the California CAA of 1988, and also has established CAAQS for additional pollutants.

The CARB is the State regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The CARB is responsible for the development, adoption, and enforcement of the State's motor vehicle emissions program, as well as the adoption of the CAAQS. The CARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations.

California Health and Safety Code section 39607(e) requires the CARB to establish and periodically review area designation criteria. These designation criteria provide the basis for the designation of areas in the State as "attainment," "nonattainment," or "unclassified" for the CAAQS. On April 15, 2004, the SDAB was designated a basic nonattainment area for the 8-hour NAAQS for $O_3$. The SDAB is currently classified as a nonattainment area under the CAAQS for $O_3$, $PM_{10}$ and $PM_{2.5}$. Table 2.3-5 summarizes the attainment classification for each pollutant in the SDAB.

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) are also responsible for the determination if a substance should be formally identified as a TAC in California. Several of the components of diesel engine exhaust, including the particulate emissions from diesel-fueled engines, have been listed by CARB as TACs, or are recognized by CARB or OEHHA as toxic air pollutants.

**California State Implementation Plan (SIP)**

The CAA (and its subsequent amendments) required each State to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA, and will achieve air quality goals when implemented. The CARB adopts the California SIP. The APCD has developed the

SDAB's input to the SIP, which is required under the federal CAA for areas that are out of attainment of air quality standards. The SIP includes the APCD's plans and control measures for attaining the $O_3$ NAAQS. The SIP is also updated on a triennial basis. The CARB adopted its 2007 State Strategy for California's 2007 SIP on September 27, 2007. The State Strategy was submitted to the EPA on November 16, 2007 for their review and approval. As part of the State Strategy, the APCD developed its Eight-Hour $O_3$ Attainment Plan for San Diego County (APCD 2007c), which provides plans for attaining and maintaining the 8-hour NAAQS for $O_3$. This plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the EPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. The SIP does not address impacts from sources of $PM_{10}$ or $PM_{2.5}$, although it does include control measures (rules) to regulate stationary source emissions of those pollutants. Additionally, the 2004 Revisions to the California SIP for CO were adopted on July 22, 2004. The original SIP for CO was adopted in 1996. The SIP for CO demonstrates how the SDAB would continue to maintain compliance with federal CO standards.

**Assembly Bill 32, the California Climate Solutions Act of 2006 (Health and Safety Code Section 38500 et seq.)**

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. In general, AB 32 directs the CARB to do the following:

- In October 2007, the CARB publicly made available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- On November 16, 2007, the CARB made publicly available the staff report California 1990 GHG Emissions Level and 2020 Emissions Limit that determined the statewide levels of GHG emissions in 1990, and recommended 427 million metric tonnes of $CO_2$ as the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit;
- On or before January 1, 2010, the CARB shall adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, the CARB shall adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and nonmonetary incentives that reduce GHG emissions from any sources or categories of sources that CARB finds necessary to achieve the statewide GHG emissions limit; and
- The CARB shall monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

AB 32 also takes into account the relative contribution of each source or source category to protect adverse impacts on small businesses and others by requiring the CARB to recommend a de minimis threshold of GHG emissions below which emissions reduction requirements would not apply. AB 32 also allows the Governor to adjust the deadlines mentioned above for

individual regulations or the entire State to the earliest feasible date in the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm.

**Executive Order #S-3-05**

Executive Order S-3-05, signed by Governor Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions by 2050. Executive Order S-3-05 also calls for the California EPA (CalEPA) to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. The first of these reports, Our Changing Climate: Assessing Risks to California, and its supporting document, Scenarios of Climate Change in California: An Overview (herein referred to as the Climate Scenarios report), was published by the California Climate Change Center in 2006.

**California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588)**

The California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) is a State-wide program enacted in 1987. AB 2588 requires hundreds of facilities in San Diego County to quantify the emissions of TACs, and in some cases conduct a HRA, and notify the public, while developing risk reduction strategies. In San Diego County, APCD Rule 1210 implements the public notification and risk reduction requirements of the State Air Toxics "Hot Spots" Act, and requires facilities to reduce risks to acceptable levels within five years. In addition, Rule 1200 establishes acceptable risk levels, and emission control requirements for new and modified facilities that may emit additional TACs.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by EPA as HAPs and by the CARB as TACs. On August 27, 1998, the CARB identified particulate matter in diesel exhaust as a toxic air contaminant, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.

In September 2000, CARB adopted a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel particulate matter emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identifies 14 measures that CARB will implement over the next several years, and diesel engines in both on-road and off-road mobile sources are already regulated by the EPA.

### *2.3.2.3 Local*

**San Diego County Regional Air Quality Strategy (RAQS)**

The APCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County. The APCD and the SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the AAQS in the SDAB. The strategy, called the San Diego County RAQS, outlines APCD's plans and control measures

specifically designed to attain the CAAQS for $O_3$. The RAQS was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, and most recently in 2004. The APCD is currently developing its update to the RAQS, though as of January 2009 a draft has not been released for review. The RAQS outlines APCD's plans and control measures designed to attain the State air quality standards for $O_3$. Like the SIP, this plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Emissions and reduction strategies related to mobile sources are also considered in the RAQS. As described above in Section 2.3.2.2, the APCD has also developed the air basin's input to the SIP, which is required under the federal CAA for areas that are out of attainment of air quality standards.

The RAQS and the SIP do not address impacts from sources of $PM_{10}$ or $PM_{2.5}$, although the SIP does include control measures (rules) to regulate stationary source emissions of those pollutants. However, in addition to the RAQS and SIP, the APCD has developed its Measures to Reduce Particulate Matter in San Diego County (APCD 2005). These measures address both directly emitted particulate matter and emissions of precursors to particulate matter, including oxides of nitrogen ($NO_X$), oxides of sulfur ($SO_X$), VOCs, and ammonia.

The RAQS relies on information from CARB and SANDAG, including mobile (vehicular) and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. Since APCD only regulates non-mobile (stationary and some area) sources, only the stationary and area source control measures identified in the RAQS and SIP have been developed by the APCD into regulations. The rules are developed to set limits on the amount of emissions from various types of sources and/or require specific emission control technologies (ECTs). Following rule adoption, a permit system is used to require air pollution controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operating conditions, monitoring, record keeping, reporting, and emissions testing. Stationary sources are inspected by APCD on a regular basis to ensure compliance with all emissions, maintenance and operating requirements.

The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the SDAB. The SIP also includes rules and regulations that have been adopted by the APCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for $O_3$.

**APCD Rules and Regulations**

As discussed above, State law provides that local air districts such as the APCD have primary responsibility for controlling emissions from non-mobile (stationary) sources.

The stationary source control measures identified in the RAQS and SIP have been developed by the APCD into regulations through a formal rulemaking process. Rules are developed to set limits on the amount of emissions from various types of sources and/or by requiring specific

ECTs. Following rule adoption, a permit system is used to impose controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operating conditions or equipment on a source.

It is difficult to ensure that new or modified sources do not interfere with attainment or maintenance of the established air quality standards for $O_3$. Since $O_3$ is a secondary pollutant (i.e., $O_3$ is not directly emitted, but results from complex chemical reactions in the atmosphere from precursor pollutants) control of the precursors is required. Therefore, control of emissions of VOCs and $NO_X$, the $O_3$ precursors, is essential.

Additionally, the APCD is currently developing Rule 55, the Fugitive Dust Rule. This regulation would prohibit dust impacts from construction impacts. The rule would not specify particular measures to be implemented to reduce impacts; it would only define impacts that must be avoided.

**County of San Diego Code of Regulatory Ordinances, Title 8, Division 7, Chapter 4, Section 87.428, Dust Control Measures**

County Code Section 87.428, Dust Control Measures, requires all clearing and grading to be carried out with dust control measures adequate to prevent creation of a nuisance to persons or public or private property. Clearing, grading or improvement plans shall require that measures such as the following be undertaken to achieve this result: watering, application of surfactants, shrouding, control of vehicle speeds, paving of access areas, or other operational or technological measures to reduce dispersion of dust. These project design measures are to be incorporated into all earth disturbing activities to minimize the amount of particulate matter emissions from construction.

## 2.3.3 Analysis of Project Impacts and Determination of Significance

### *2.3.3.1 Issue 1: Air Quality Plans*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance, Air Quality, the proposed General Plan Update would have a significant impact if it would conflict with or obstruct implementation of the RAQS, applicable portions of the SIP, and/or any local air quality plans.

**Impact Analysis**

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area source and all other source emissions, in order to project future emissions and determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the city and County general plans would be consistent with the RAQS. In the event that a project would propose development which is less dense than was anticipated

within the applicable general plan, the project would be consistent with the RAQS. If a project proposes development that is greater than that anticipated in regional planning documents, the project would be in conflict with the RAQS and SIP because this growth would result in additional emissions not accounted for during preparation of the RAQS and SIP, and might have a potentially significant impact on air quality.

The current RAQS and SIP are based on projections for residential, commercial, industrial, and recreational land uses contained in the existing General Plan. The proposed General Plan Update would accommodate less growth at build-out than the existing General Plan, as described in Chapter 4.0, Project Alternatives. The development capacity of the existing General Plan would result in more future dwelling units (119,033 additional units) than the proposed General Plan Update (71,540 additional units). However, future development consistent with the land use designations identified in the General Plan Update would result in increased development beyond existing levels currently on the ground. Build-out of development that would be accommodated under General Plan Update provides the basis for emission estimates that would be included in the future RAQS and SIP attainment demonstrations for nonattainment pollutants.

Based on the requirements for consistency with emission control strategies in the RAQS and SIP, the General Plan Update would not conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

The RAQS focuses on attainment of the CAAQS for $O_3$, and addresses emission reduction measures designed to reduce emissions of $O_3$ precursors (VOCs and $NO_X$) to meet the California CAA goal of reducing $O_3$ precursor emissions by 5 percent per year or, if that goal is not achievable, to develop an expeditious schedule for adopting every feasible control measure under the APCD's purview. Specific VOC emission reduction strategies included in the RAQS that apply to the General Plan Update are listed in Table 2.3-7. Specific $NO_X$ emission reduction strategies included in the RAQS that apply to future development consistent with the General Plan Update are listed in Table 2.3-8. Additional specific control measures for VOC and $NO_X$ emissions that apply to specific industrial sources are not included in Tables 2.3-7 or 2.3-8, but compliance with these rules must be demonstrated through permitting requirements with the APCD. In addition to these measures, the RAQS adopts strategies to reduce emissions from other categories of sources such as on-road vehicles, lawnmowers, and backup generators. The SIP provides plans for attaining and maintaining the 8-hour NAAQS for $O_3$ and demonstrates how the SDAB would continue to maintain compliance with federal CO standards. This plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the EPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the SIP. Future development occurring under the General Plan Update would be required to be consistent with the emission reduction strategies in the RAQS and SIP in order to comply with APCD rules and regulations and obtain required APCD permits. All future development projects under the General Plan Update would be required to demonstrate consistency with the RAQS and the SIP during the environmental review process and identify mitigation measures for any potentially significant conflicts in order for the project to be approved by the County.

In addition to the RAQS and SIP, the General Plan Update is required to comply with local air quality plans. The APCD's Measures to Reduce Particulate Matter in San Diego County (APCD 2005) identifies fugitive dust as the major source of directly emitted particulate matter in the County, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributors to $PM_{2.5}$ in the County are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to $PM_{10}$ include resuspended soil and road dust, such as from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on an evaluation of control measures recommended by the CARB to reduce particulate matter emissions, the APCD will adopt Rule 55, which will require control of fugitive dust emissions. Rule 55 prohibits construction or demolition activity that would discharge into the atmosphere, beyond the property line, dust emissions of 10 percent opacity or greater for a period of 3 minutes in any 60-minute period. Rule 55 also requires minimization of visible roadway dust as a result of active operations that generate fugitive dust. DPLU implements fugitive dust control measures through County Code Section 87.428. Should Rule 55 be adopted by the APCD, the County General Plan would be consistent with the adopted measure because future construction would be required by DPLU to comply with the dust control measures in order to obtain a construction permit.

**Proposed General Plan Update Goals and Policies**

The General Plan Update Conservation and Open Space Element includes Goal COS-14 regarding land use development which implements policies designed to reduce emissions of criteria pollutants while protecting public health. The policies that support this goal are Policies COS-14.1 through COS-14.13. These policies include requirements for new development design and construction methods to minimize impacts to air quality; encourage future development to reduce vehicular trips by utilizing compact regional and community-level development patterns; encourage new development to reduce air pollution by incorporating a mixture of uses within villages and rural town centers that encourage people to walk, bicycle, or use public transit; minimize land use conflicts that expose people to significant amounts of air pollution; support transportation management programs that reduce the use of single-occupancy vehicles; and encourage the use of low emission vehicles and equipment to improve air quality and reduce GHG emissions.

**Summary**

The proposed General Plan Update includes land use designations that would allow development of residential, commercial, industrial, and other land uses in the unincorporated County. Future development would be required to demonstrate compliance with the strategies and measures adopted as part of the RAQS and SIP during the County's environmental review process, as well as with the requirements of the County and/or APCD to reduce emissions of particulate matter. Based on the requirements for consistency with emission control strategies in the RAQS and SIP, the General Plan Update would not conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP. Implementation of the General Plan Update would result in a less than significant impact associated with conflicts to applicable air quality plans.

### *2.3.3.2 Issue 2: Air Quality Violations*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance, Air Quality, the proposed General Plan Update would have a significant impact if it would exceed the quantitative screening-level thresholds (SLTs) for attainment pollutants ($NO_2$, $SO_2$, and CO), and would result in a significant impact if they exceed the SLTs for nonattainment pollutants ($O_3$ precursors and particulate matter). Specifically, the proposed project would result in a significant impact if it would result in:

a. Emissions that exceed 250 pounds per day of $NO_X$, or 75 pounds per day of VOCs;

b. Emissions of CO that when totaled with the ambient concentrations will exceed a 1-hour concentration of 20 ppm or an 8-hour average of 9 ppm;

c. Emissions of $PM_{2.5}$ that will exceed 55 pounds per day; or

d. Emissions of $PM_{10}$ that exceed 100 pounds per day and increase the ambient $PM_{10}$ concentration by 5 $\mu g/m^3$ or greater at the maximum exposed individual.

**Impact Analysis**

**Emissions of Nonattainment Pollutants**

The air pollutants of greatest concern in San Diego County are $O_3$, $PM_{10}$, and $PM_{2.5}$ because of the current nonattainment status for the NAAQS ($O_3$) and CAAQS ($O_3$, $PM_{10}$, and $PM_{2.5}$) for these pollutants. Emission sources for these pollutants are categorized and identified in the CARB's Almanac and detailed emissions estimates for each source category are quantified in the CARB's emission inventories for existing and future years (CARB 2009). General source categories accounted for in the emission inventories include the following:

- Stationary sources: Fuel combustion, waste disposal processes, cleaning and surface coating processes, petroleum production and marketing, and industrial processes.
- Area-wide sources: Solvent evaporation sources from the use of consumer products and architectural coatings, and miscellaneous processes such as residential fuel combustion and fugitive dust generation
- Mobile sources: On-road and off-road vehicles

Stationary source emissions are reported to the APCD and are not anticipated to change unless new stationary sources are constructed. However, if new stationary sources were constructed, they would be subject to the APCD's requirements for permitting and must demonstrate that they will not cause or contribute to a violation of an air quality standard. Therefore, future emissions from stationary sources developed under the General Plan Update were not calculated because these sources would be required to demonstrate that they would not contribute to or violate any air quality standards in order to obtain required permits from the APCD. The largest stationary sources within San Diego County include the South Bay Power Plant, the Cabrillo Power Plant, and the National Steel and Shipbuilding Company. All are located in the incorporated areas of the County. Certain land uses proposed under the General Plan Update would be more likely to involve the development of stationary sources. These

include limited impact industrial, medium impact industrial, high impact industrial, neighborhood commercial, general commercial, and rural commercial. Future facility development of stationary sources, allowable under the land uses proposed by the General Plan Update, would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the development of stationary source facilities may be significant and unavoidable, such as impacts associated with air quality, noise, hydrology/water quality, and/or biological resources.

Estimates of development associated with the proposed General Plan Update are based on the forecasted build-out of the General Plan Update land use designations. The County is anticipating the following growth to occur under the General Plan Update:

- Approximately 71,540 new housing units, of which approximately 52 percent would be village residential units, 33 percent would be semi-rural residential units, and 15 percent would be rural residential units.
- Approximately 176,478,135 square feet (sf) of commercial development.
- Approximately 47,760,463 sf of light and medium impact industrial development.
- Approximately 12,286,226 sf of heavy impact industrial development.
- Approximately 8,322,180 sf of office/professional development.
- Approximately 235,568,900 sf of public and semi-public development.
- Approximately 4,899,712 sf of development on tribal lands. Tribal land development is mainly associated with tribal gaming development with supporting facilities.

Emissions from area-wide sources were calculated using the URBEMIS Model, Version 9.2.4. SANDAG used the EMFAC2007 model to generate estimates of on-road vehicle emissions as a result of the proposed General Plan Update. The EMFAC2007 model provides area-wide estimates based on estimated vehicle miles traveled and vehicle types. Table 2.3-9 presents a summary of the area source and vehicular emissions associated with the General Plan Update. Emissions associated with implementation of the General Plan Update would exceed the SLTs for $PM_{10}$, $PM_{2.5}$, $NO_X$, and VOCs. Therefore, future growth accommodated by the General Plan Update would result in a potentially significant impact associated with air quality standards.

Areas that experience traffic congestion may experience the formation of locally high concentrations of CO, known as CO “hot spots.” To evaluate the potential for growth anticipated under in the General Plan Update to result in CO “hot spots,” a review of the CO “hot spots” analysis conducted by the South Coast Air Quality Management District (SCAQMD) as part of their request to the USEPA for redesignation as a CO attainment area is hereby incorporated by reference (SCAQMD 2003). SCAQMD is the smog control agency for all or portions of Los Angeles, Orange, Riverside and San Bernardino Counties. The SCAQMD CO “hot spots” analysis is located within Appendix V of the South Coast Air Basin (SCAB) 2003 Air Quality Management Plan, available at http://www.aqmd.gov and summarized below.

In support of its redesignation request, the South Coast Air Quality Management District (SCAQMD 2003) modeled the four most congested intersections identified in the air basin to demonstrate that no exceedances of the CO standard would occur. The four selected intersections, and the reasons for their inclusion in the CO "hot spots" analysis, are listed below:

1. **Long Beach Boulevard and Imperial Highway.** This location was selected due to its proximity to the Lynwood monitoring station, which consistently records the highest 8-hour CO concentrations in the South Coast Air Basin (SCAB) each year.

2. **Wilshire Boulevard and Veteran Avenue.** This is considered to be the most congested intersection in Los Angeles County, with an average daily traffic volume of 100,000 vehicles/day.

3. **Highland Avenue and Sunset Boulevard.** This is one of the most congested intersections in the City of Los Angeles.

4. **Century Boulevard and La Cienega Boulevard.** This is one of the most congested intersections in the City of Los Angeles.

The analysis demonstrated that even the most congested intersections in the SCAB would not experience a CO "hot spot." The CO "hot spots" analysis for these intersections indicated that the average 1-hour CO concentrations predicted by the models would be no more than 7.7 ppm, which is 38.5 percent of the 1-hour CO CAAQS of 20 ppm. No monitoring station located within the SDAB has experienced an exceedance of either the 1-hour or 8-hour CO standard in more than 10 years. As shown in Appendix G of this EIR, the County of San Diego Traffic and Circulation Assessment, none of the roadways/segments identified as deficient facilities (i.e., LOS E or F) for the cumulative scenario (i.e., worst case traffic) in the assessment have an ADT greater than 100,000, which was the amount of traffic anticipated for the intersection of Wilshire Boulevard and Veteran Avenue (the most congested intersection in Los Angeles County). The CO emissions modeled in the CO "hot spots" analysis for the SCAB included emissions for 1997 and emissions for 2002. As shown in Table 4-8 (pg. V-4-25) of Appendix V of the SCAB South Coast Air Basin 2003 Air Quality Management Plan, both running exhaust emission factors and idling emission factors predicted by the EMFAC model decreased from 1997 through 2002. CO emission factors decreased from a maximum of 13.13 grams CO/mile in 1997 to a maximum of 7.98 grams CO/mile in 2002 for running exhaust, and decreased from a maximum of 2.43 grams CO/idle-hour in 1997 to 1.30 grams CO/idle-hour for idling exhaust. These decreases in emission factors reflect phase-out of older vehicles and increasingly stringent emission standards implemented by the CARB that are taken into account in the EMFAC Model.

Emission factors for San Diego County from the EMFAC2007 Model are included in Appendix B of this EIR. The factors indicate that running exhaust emissions of CO would be less than 6.708 grams CO/mile in 2010 (based on an average speed of 5 mph), and the EMFAC2007 Model indicates that emissions of CO would decrease in future years. Because emissions would be lower and traffic projections for the General Plan Update do not approach the levels modeled by the SCAQMD in their attainment demonstration, CO concentrations would be lower within San Diego County. Therefore, no exceedances of the CO standard would be predicted to occur due to the growth anticipated under the General Plan Update.

In addition to impacts associated with area-wide sources, stationary sources, and vehicles, which are long-term emission sources, short-term emissions associated with construction would

occur within the County. Construction emissions would be associated with the development of land uses consistent with the General Plan Update, and would include emissions associated with off road equipment, vehicles, fugitive dust from surface disturbance, and architectural coatings use. Construction emissions are included in the CARB's Almanac under these categories, and the CARB projects a certain amount of construction to occur each year based on growth projections for the region. Construction emissions for individual projects would be temporary, and the total duration would vary from project to project.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Measures would be implemented by federal, State and local agencies and the County that would reduce emissions of criteria pollutants in the unincorporated County. These measures include the CARB motor vehicle standards (CARB 2008b), use of reduced-VOC architectural coatings, and the requirement for projects to exceed Title 24 Energy Efficiency Standards (CEC 2006). Additionally, discretionary projects processed by the County are evaluated based on the County's Guidelines for Determining Significance which utilized screening thresholds for criteria air pollutants. Uses suspected of exceeding the thresholds would require the preparation of a technical study to determine potential impacts and mitigation.

***Implementation of CARB Motor Vehicle Standards***

The main contributor to emissions for the General Plan Update is vehicular emissions. Implementation of programs to reduce emissions from vehicles is the responsibility of the CARB, and the CARB has implemented and continues to implement programs such as increasingly stringent emission standards, smog check programs, and inspection and maintenance programs for fleet vehicles. The CARB has also implemented programs such as restriction of idling for greater than 5 minutes for heavy-duty vehicles. These programs are taken into account in the EMFAC2007 Model. To show the emissions reductions that are projected, taking into account growth associated with the General Plan Update, Table 2.3-10 presents a comparison of vehicular emissions for the current inventory year (2007) versus the vehicular emissions associated with the General Plan Update.

As shown in Table 2.3-10, emission reductions implemented through CARB programs would substantially reduce emissions of VOCs, $NO_X$, and CO from 2007 to 2030. Emissions of $SO_X$, $PM_{10}$, and $PM_{2.5}$ would only increase slightly despite an increase of 3,594,100 additional vehicle trips with implementation of the General Plan Update. Thus, while emissions from on-road vehicles would not be reduced to below the SLTs with implementation of motor vehicle mitigation measures, emissions would be reduced as compared to current levels due to CARB standards that require increasingly stringent emission standards, smog check programs, and inspection and maintenance programs for fleet vehicles.

***Use of Reduced-VOC Architectural Coatings***

The APCD adopted Rule 67.0, which governs the VOC content of architectural coatings and requires coatings to meet increasingly stringent VOC levels. All future development that would use architectural coatings would be required to use coatings that comply with Rule 67.0.

***Requirement for Projects to Exceed 2006 Title 24 Energy Efficiency Standards***

The County encourages new development to reduce energy impacts from new buildings by exceeding Title 24 energy standards. DPLU, through its programs to reduce emissions of GHGs, would require projects undergoing review to demonstrate that they would meet the goals

of AB 32, the Global Warming Solutions Act. Projects would be required to implement energy efficiency measures that exceed current energy standards identified in the Building Energy Efficiency Standards for Residential and Nonresidential Buildings, most recently revised by the California Energy Commission in September 2006 (CEC 2006).

Table 2.3-11 presents a summary of the emissions associated with the implementation of the General Plan Update (at build out), assuming use of low-VOC architectural coatings, as required by law, and implementation of a requirement to exceed Title 24 standards by 20 percent. As shown in Table 2.3-11, even with these emissions reduction measures in place, pollutant emissions in the County would remain above the SLTs.

**Proposed General Plan Update Goals and Policies**

As shown in Table 2.3-11 and discussed above, implementation of the General Plan Update would result in emission of criteria pollutants that would exceed SLTs. The proposed General Plan Update includes goals and policies would reduce emissions associated with future development under the General Plan Update.

In addition to Goal COS-14 and supporting policies, described above in Section 2.3.3.1, Issue 1, the General Plan Update Conservation Element also includes Goals COS-15, COS-16, and COS-20. Goal COS-15 which is building design and construction techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment. This goal is supported by Policies COS-15.1 through COS-15.5. Policy COS-15.1 encourages the design and construction of new buildings in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHG and TACs. Policies COS-15.2 through COS-15.5 would include the following:

- Promote and, as appropriate, develop standards for the retrofit of existing buildings to incorporate design elements, heating and cooling, water, energy, and other elements that improve their environmental sustainability and reduce GHG (and emissions of criteria pollutants).
- Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.
- Require all new County facilities and the renovation and expansion of existing buildings to meet identified "green building" programs, and encourage the use of energy recovery, photovoltaic and wind energy in appropriate areas and with appropriate new land development projects.
- Require new development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.

Incorporation of green building practices, energy conservation and efficiency would reduce emissions of criteria pollutants that would otherwise be associated with construction and operations of future development in the unincorporated County. Additionally, Goal COS-16 is transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and other air pollutant emissions. Supporting Policies COS-16.2 and COS-16.3 support programs that reduce the use of single-occupancy vehicles, and encourage and provide incentives for the use of low- and zero-emission vehicles. Policy COS-20.3 requires

coordinated air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions. This policy supports Goal COS-20, which is a reduction of local GHG emissions contributing to climate change that will meet or exceed the requirements of the Global Warming Solutions Act of 2006.

**Summary**

Emissions of criteria pollutants associated with future development consistent with the General Plan Update would exceed the SLTs for $PM_{10}$, $PM_{2.5}$, $NO_X$, and VOCs. Future development under the General Plan Update would be required to comply with CARB motor vehicle standards, APCD regulations from stationary sources and architectural coatings, Title 24 energy efficiency standards, and the General Plan Update goals and policies. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with air quality violations, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with air quality violations and specific implementation programs are identified as mitigation.

### *2.3.3.3 Issue 3: Non-Attainment Criteria Pollutants*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance, Air Quality, the proposed County General Plan Update would have a significant impact if it would result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is non-attainment under an applicable federal or State AAQS (including emissions which exceed the SLTs for $O_3$ precursors listed in Table 2.3-12).

**Impact Analysis**

As discussed in Section 2.3.3.2, Issue 2, emissions associated with implementation of the General Plan Update would exceed the SLTs for $PM_{10}$, $PM_{2.5}$, $NO_X$, and VOCs. These emissions would primarily come from vehicles trips associated with new development under the General Plan Update, and equipment and construction materials used during construction of future development and infrastructure. Cumulatively considerable net increases during the construction phase would typically happen if two or more projects near each other are simultaneously constructed. A project that has a potentially significant direct impact on air quality with regard to emissions of $PM_{10}$, $PM_{2.5}$, $NO_X$, or VOCs during construction would also have a significant cumulatively considerably net increase. In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other cumulative projects with the potential to impact air quality in the SDAB, are in excess of the guidelines identified in Table 2.3-12.

Emissions associated with implementation of the General Plan Update would exceed the SLTs for $NO_X$ and VOCs. The SDAB is currently classified as a non-attainment area for the NAAQS and CAAQS for $O_3$, which is caused by contributions from $O_3$ precursors $NO_X$ and VOCs. The APCD's Eight-Hour $O_3$ Attainment Plan for San Diego County (APCD 2007c) recognizes that

one of the key contributors to $O_3$ levels in the County is emissions from motor vehicles. Motor vehicle emissions account for 48 percent of the $O_3$ precursor emissions in the SDAB, with other mobile sources such as off-road vehicles accounting for an additional 33 percent of the $O_3$ precursor emissions. As discussed above in Section 2.3.3.2, Issue 2, implementation of programs to reduce emissions from vehicles is the responsibility of the CARB, and the CARB has implemented and continues to implement programs that would reduce emissions of $O_3$ precursors from motor vehicles. Implementation of County measures such as requiring energy efficiency beyond Title 24 and use of low-VOC paints would contribute to reductions in emissions of $O_3$ precursors. However, the General Plan Update would result in increases in vehicular emissions that would exceed the SLTs for $NO_X$ and VOCs. Therefore, the General Plan Update would result in a potentially significant direct impact on air quality for $O_3$ precursors $NO_X$ and VOCs and would contribute to cumulatively considerable net increase of a criteria pollutant for which the SDAB is non-attainment ($O_3$).

**Federal, State and Local Regulations and Existing Regulatory Processes**

Provided the County is consistent with the measures outlined in the RAQS and SIP, and provided the SDAB attains and maintains the NAAQS for $O_3$, the implementation of the County General Plan Update would not result in a cumulatively significant impact due to emissions of $O_3$ precursors for the NAAQS. Attainment is based on the more intensive existing General Plan. Therefore, $O_3$ attainment would not be impacted by the implementation of the proposed General Plan Update because it is less intensive than the existing General Plan. The project's compliance with the RAQS and SIP, and measures designed to reduce emissions of $O_3$ precursors, are discussed in Section 2.3.3.1, Issue 1, above. As discussed in this section, the General Plan Update would not conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

The SDAB is currently classified as an attainment area for the NAAQS for both $PM_{10}$ and $PM_{2.5}$, but the 24-hour NAAQS for $PM_{2.5}$ was lowered in September 2006 from 65 µg/m$^3$ to 35 µg/m$^3$. The SDAB experienced five exceedances of the new NAAQS for $PM_{2.5}$ in 2007. The SDAB is currently classified as a nonattainment area for the CAAQS for $PM_{10}$. To date, the APCD has not been required to prepare a SIP or other air quality planning documents to address exceedances of the particulate standards. Accordingly, because the implementation of the General Plan Update would allow for the development of land uses that would increase County-wide emissions of $PM_{10}$ and $PM_{2.5}$, the General Plan Update would result in a cumulatively significant impact on the air quality.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes land use planning goals and policies designed to promote continued reductions in air emissions in the SDAB. These policies described in Section 2.3.3.2, Issue 2: Air Quality Violations, regarding land use development. These goals and policies would be consistent with the attainment plan for the SDAB. The General Plan Update goals and policies described above in Section 2.3.3.2, Issue 2, are designed to reduce $O_3$ precursors.

**Summary**

Emissions of criteria pollutants associated with future development consistent with the General Plan Update would result in a cumulatively significant impact associated with $PM_{10}$ and $PM_{2.5}$, and $O_3$ precursors under CAAQS. Future development under the General Plan Update would

be required to comply with the RAQS, SIP, CARB motor vehicle standards, APCD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and the General Plan Update goals and policies. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize impacts associated with non-attainment criteria pollutants, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with non-attainment criteria pollutants and specific implementation programs are identified as mitigation.

### *2.3.3.4 Issue 4: Sensitive Receptors*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance, Air Quality, the proposed County General Plan Update would have a significant impact if it would directly impact a sensitive receptor and result in a cancer risk of greater than 1 in one million without implementation of Toxics Best Available Control Technology (T-BACT), 10 in one million with implementation of T-BACT, or health hazard index of one or more, consistent with the APCD's Rule 1210 requirements for stationary sources.

**Impact Analysis**

In addition to impacts from criteria pollutants described in Section 2.10.3.2, Issue 2, above, project impacts may include emissions of pollutants identified by the federal and State government as TACs. TACs are defined by the California Health and Safety Code as air pollutants which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. The CalEPA Office of Environmental Health Hazard Assessment has identified approximately 192 TACs in California (OEHHA 2001). These TACs include acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter. Some of these TACs are groups of compounds which contain many individual substances (for example, copper compounds, polycyclic organic matter).

The CARB has established a State-wide program to monitor ambient concentrations of TACs and to assess potential background health risks associated with those levels. To that end, the CARB established monitoring stations to measure the ten TACs posing the greatest health risk in California, based on ambient air quality data. The CARB established two monitoring sites in San Diego County: Chula Vista and El Cajon. A third monitoring location, which was operated as part of a special study, measured ambient concentrations of TACs in the Logan Heights/Barrio Logan area of the City of San Diego from October 1999 through February 2001. As discussed in the APCD's 2007 Annual Report, monitoring station locations were selected because they are located nearby and downwind of transportation, industrial, and other air pollutant sources and were designed to provide conservative estimates of concentrations of TACs (APCD 2007b). The monitoring station locations represent areas that have a higher proportion of TAC sources than most areas in San Diego County.

Using the data from the monitoring stations, the CARB estimated background excess cancer risks associated with exposure to ambient levels of TACs. The background cancer risk to individuals in San Diego County was estimated as 607 in one million based on ambient pollutant levels measured in 2000 (CARB 2009). Diesel particulate matter was estimated to account for the greatest amount of risk: 69.2 percent of the risk (420 in one million). Benzene and 1,3-butadiene each contribute approximately 10 percent of the risk. Diesel particulate matter is composed of a complex mixture of substances emitted from diesel sources, and there is no means of directly measuring this TAC. Heavy-duty trucks that utilize diesel as a fuel emit diesel particulate matter. Diesel particulate matter from diesel-fueled engines is responsible for most of the airborne cancer risk from TACs in California. Accordingly, the CARB used elemental carbon as a surrogate for diesel particulate in its monitoring program because of the relatively high fraction of elemental carbon in diesel particle matter (CARB 2004). Emissions of diesel particulate matter, benzene, and 1,3-butadiene are mainly attributable to on-road mobile sources.

In its EMFAC2007 emissions evaluation, SANDAG included estimates of $PM_{2.5}$ from vehicles, which includes emissions from diesel truck traffic based on vehicle miles traveled and the estimated number of truck trips. As noted in the paragraph above, the CARB has identified diesel particulate matter as the greatest contributor to excess cancer risk in San Diego County.

The APCD maintains a record of emission inventory reports that are submitted by facilities subject to the Air Toxics "Hot Spots" Information and Assessment Act. The Act requires facilities to submit periodic emission inventories and, if requested by the APCD, to prepare periodic HRAs based on their approved inventories. Most of the TAC-emitting facilities within the SDAB are located in incorporated areas of the County, as shown in Table 2.3-14.

Current background risks measured in San Diego County are above both the significance threshold of 1 in a million excess cancer risk without T-BACT, and 10 in a million excess cancer risk with application of T-BACT. The risks are mainly attributable to exposure to emissions from on-road vehicles. CARB programs designed to reduce emissions, as well as phase-out of older vehicles, would reduce emissions of these pollutants, but not to less than significant levels. Furthermore, growth anticipated by implementation of the General Plan Update would result in the need to develop and expand transportation corridors to allow for the movement of goods within the County; therefore, it is projected that truck trips would increase in the County. The Mobility Element roadway network is described in Section 1.7.1.3, Mobility. The Traffic and Circulation Assessment identified the total number of average daily trips generated under the General Plan Update to be 5,237,405, including truck and non-truck trips (Wilson and Company 2008a). Because the number of truck trips and other vehicle trips would increase under the General Plan Update, emissions of diesel particulates would also increase. The current background risk exceeds the significance threshold; therefore, any proposed general plan update would result in a potentially significant impact.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) requires facilities that exceed recommended OEHHA levels to reduce risks to acceptable levels. In the SDAB, APCD Rule 1210 implements this program. Facilities that have emissions above levels recommended by OEHHA would be required to develop and implement plans to reduce risks below these levels. Additionally, the CARB has implemented an ongoing program to study the potential health effects of diesel particulate matter, to identify sources of diesel particulate

matter, and to develop programs to reduce emissions. These programs include development and implementation of control strategies for off-road, on-road, and marine vessel diesel sources. These sources are already regulated by the EPA and operation of diesel engines must comply with these standards. However, as described above in the previous paragraph, while these standards reduce diesel emissions, emissions may not be reduced to below a significant level. Discretionary projects considered by the County are also evaluated for health risks pursuant to the County's Guidelines for Determining Significance. Depending on the uses proposed and/or the proximity to emission sources or sensitive receptors, a health risk assessment may be required to evaluate potential impacts and require mitigation.

**Proposed General Plan Update Goals and Policies**

In the Air Quality and Land Use Handbook (CARB 2005), the CARB presents its recommendations for the siting of new sensitive land uses. The Handbook makes specific recommendations for a number of source types such as freeways, refineries, and dry cleaners, which are summarized in Table 2.3-13. According to the Handbook, the primary purpose of planning is to protect public health, safety, and welfare. A local government's General Plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, forming the basis for most land use decisions. The General Plan intends to avoid incompatible land uses by incorporating air quality considerations into the Conservation and Open Space Element. However, the General Plan Update does not include policies relating specifically to sensitive receptors.

**Summary**

Future development consistent with the General Plan Update would result in potentially significant emissions of diesel particulate matter. Land development projects are required to comply with AB 2588, APCD Rule 1210, and CARB standards for diesel engines. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize impacts associated with sensitive receptors, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with sensitive receptors and specific implementation programs are identified as mitigation.

### *2.3.3.5 Issue 5: Objectionable Odors*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, and the County of San Diego Guidelines for Determining Significance, Air Quality, the proposed County General Plan Update, with the exception of agricultural operations, are subject to APCD Rule 51, and would have a significant impact if it would result in the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. A project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

## Impact Analysis

Sources of objectionable odors as defined by the SCAQMD (1999) include the following:

- Landfills
- Agricultural operations
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting
- Dairies
- Fiberglass molding

There are seven active landfills in the San Diego region that serve the residents, businesses, and military operations of both incorporated and unincorporated areas of the County. These include Borrego Landfill in the Desert Subregion, Miramar Landfill in the City of San Diego, Otay Landfill in the City of Chula Vista, Ramona Landfill in the Ramona CPA, Sycamore Landfill in the City of Santee, and Las Pulgas and San Onofre Landfills on United States Marine Corps (USMC) Camp Pendleton. The Sycamore, Otay, Ramona, and Borrego landfills are owned and operated by the private waste service company, Allied Waste Industries. Las Pulgas and San Onofre landfills are owned and operated by the USMC, and the Miramar Landfill is owned and operated by the City of San Diego. The USMC-operated landfills are not available for public disposal. The landfills located in the unincorporated County with the potential to impact unincorporated County residents are the Borrego Landfill and Ramona Landfill. Odor control practices are in place at all landfills, and odor control is under the purview of the APCD. Landfill odor control practices include application of odor absorbing materials or collecting and treating gases from the landfill before they are released into the surrounding community.

Major agricultural areas are located in the Bonsall CPA, Fallbrook CPA, Jamul/Dulzura CPA, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Rainbow CPA, Ramona CPA, and Valley Center CPA. Other odor sources are present within the County, including wastewater treatment plants, food processing plants, chemical plants, composting, dairies, and fiberglass molding facilities. Wastewater treatment plants located in the unincorporated County are the Ralph W. Chapman Water Reclamation Facility in Valle de Oro CPA; Rams Hill Water Reclamation Plant in the Desert Subregion; Rancho Del Campo Wastewater Pollution Control Facility in the Mountain Empire Subregion; Fairbanks Ranch Water Reclamation Facility, Rancho Santa Fe Water Reclamation Facility, Santa Fe Valley Water Reclamation Facility, Whispering Palms Wastewater Reclamation Facility, and 4S Wastewater Treatment Plant in San Dieguito CPA; Fallbrook Public Utility District Water Treatment Plant in Fallbrook CPA; Julian Wastewater Pollution Control Facility in Julian CPA; Pauma Valley Community Services District Treatment Facility in Pala\Pauma Valley Subregion; Pine Valley Wastewater Pollution Control Facility in Central Mountain Subregion; Rainbow Municipal Water District Sewage Facility in Rainbow CPA; Santa Maria and San Vicente Wastewater Treatment Facilities in Ramona CPA; and the Lower Moosa Canyon Water Reclamation Facility, Skyline Ranch Country Club Water Reclamation Facility, and the Woods Valley Ranch Water Reclamation Facility in Valley Center CPA. Food processing plants, chemical plants, composting, dairies, and fiberglass molding facilities are located throughout the County. Areas that would accommodate industrial operations under the General Plan Update, which may include these types of facilities or other odor generating industrial processes, are Alpine CPA, Fallbrook CPA,

Jamul/Dulzura CPA, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Ramona CPA, San Dieguito CPA, Spring Valley CPA, and Valle de Oro CPA. Industrial facilities, especially those located in the CPAs proposed for higher density development such as Fallbrook CPA, Lakeside CPA, Spring Valley CPA, and Valle de Oro CPA, may be located near residential developments that would be sensitive to odors. For example, limited impact industrial land uses would be accommodated in an area surrounded by land proposed for village residential use along the western edge of the Fallbrook CPA. However, as described below, regulations are currently in place that would prohibit land uses such as agricultural operations, and industrial facilities, from emitting nuisance odors in the unincorporated County.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

Agricultural operations are subject to San Diego County Code of Regulatory Ordinances, Title 6, Division 3, Chapter 4, Sections 63.401 and 63.402, the Agricultural Enterprises and Consumer Information Ordinance. County Code Sections 63.401 and 63.402 define and limit the circumstances under which agricultural enterprises, activities, operations, and facilities constitute a nuisance, including nuisance odors. Agricultural operations would not be allowed to result in nuisance odors. All other sources of odor discussed above are subject to APCD Rule 51 regarding odor control and are not permitted to allow nuisance odors to affect nearby receptors.

Facilities that cause nuisance odors are subject to enforcement action by the APCD. The APCD responds to odor complaints by investigating the complaint determining whether the odor violates APCD Rule 51. The inspector will take enforcement action if the source is not in compliance with the APCD rules and regulations and will inform the complainant of investigation results (APCD 2000). In the event of enforcement action, odor-causing impacts must be mitigated by appropriate means to reduce the impacts to sensitive receptors to less than significant. Such means include shutdown of odor sources or requirements to control odors using add-on equipment.

Discretionary projects considered by the County are evaluated for objectionable odors pursuant to the County's Guidelines for Determining Significance. Depending on the uses proposed and the proximity off-site receptors, mitigation may be required as part of this process.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update does not include any goals and policies specifically related to objectionable odors.

**Summary**

While odor sources are present within San Diego County, such as agricultural operations and landfills, the County odor policies enforced by the APCD, including Rule 51 and County Code Sections 63.401 and 63.402, prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Development of land uses consistent with the General Plan Update that would have the potential to result in nuisance odors, such as new industrial facilities, would be required to comply with these regulations. Therefore, impacts associated with objectionable odors would be less than significant.

## 2.3.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for air quality includes the County and surrounding vicinity. This includes the San Diego region or the airshed for reactive air pollutants and surrounding vicinity for nonreactive or less reactive pollutants.

### *2.3.4.1 Issue 1: Air Quality Plans*

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality plans if, in combination, they would conflict with or obstruct implementation of the RAQS and/or applicable portions of the SIP. Projects that are inconsistent with the regional planning documents that the RAQS and SIP are based on would have the potential to result in cumulative impacts if they would include development beyond regional projections. For example, the proposed Meadowood Development in Fallbrook, included in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, would construct 1,200 new residential units. The project would require an amendment to the existing General Plan, and therefore may propose development beyond what is accounted for in the RAQS and SIP, which is based on General Plan projections. However, cumulative projects shown in Table 1-11, Projects Not Included in the Proposed General Plan Update, such as the Meadowood project, are still required to show compliance with applicable air quality plans during CEQA review and prior to project approval. Cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and State-managed lands, would be required to comply with the SIP, and the RAQS or other applicable regional air quality plan. Projects in Mexico and on tribal lands and federally managed lands would not be subject to the SIP or the RAQS. Therefore, cumulative projects in the region would not result in a significant cumulative impact associated with conflicts with air quality plans. The proposed project would ultimately be used as the basis for future updates to applicable air quality plans. Development in the County would be required to comply with the General Plan Update or would not be approved. Additionally, cumulative projects not included in the proposed General Plan Update would be required to show compliance with applicable air quality plans or would not be approved. Therefore, the proposed General Plan Update would not contribute to a significant cumulative impact.

### *2.3.4.2 Issue 2: Air Quality Violations*

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative air quality violation if, in combination, they would violate any air quality standard or contribute to an existing or projected air quality violation. New stationary sources of criteria pollutants or projects that would increase vehicle trips may result in increases in pollutant emissions that would violate an air quality standard. For example, the proposed Jacumba Valley Ranch project, included in Table 1-11, Projects Not Included in the Proposed General Plan Update Land Use Map, would construct 2,100 new residential units in the Mountain Empire Subregion, a relatively undeveloped area of the County. A new residential development would increase vehicle trips to this area of the County and would have the potential to result in an associated air quality violation of the CAAQS or NAAQS from the emission of criteria pollutants due to increased vehicle trips. These projects, and the other cumulative projects located in the unincorporated County and adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, would be required to comply with NAAQS and CAAQS pursuant to CEQA prior to approval. CEQA requires

proposed projects provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the development of such projects may be significant and unavoidable, such as impacts associated with air quality, noise, hydrology/water quality, and/or biological resources. Additionally, cumulative projects in Mexico would not be required to comply with the NAAQS or CAAQS and would have the potential to exceed these standards. Therefore, cumulative projects in the region would result in a significant cumulative impact associated with air quality violations. As discussed above in Section 2.3.3.2, the proposed project would result in a potentially significant impact associated with air quality violations. In combination with other cumulative projects, the proposed project's contribution to this significant cumulative impact would be cumulatively considerable.

### *2.3.4.3 Issue 3: Non-attainment Criteria Pollutants*

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with non-attainment criteria pollutants if, in combination, they would result in a net increase of any criteria pollutant for which the SDAB is non-attainment. The SDAB is designated a basic nonattainment area for the 8-hour NAAQS for $O_3$ and as a nonattainment area under the CAAQS for $O_3$, $PM_{10}$ and $PM_{2.5}$. Development of cumulative projects in the region would have the potential to result in new sources of particulate matter from construction activities. In addition, the operation of proposed cumulative projects would result in increases in vehicle trips that would increase emissions of $O_3$ precursors. For example, the proposed Jacumba Valley Ranch project, a cumulative project discussed above in Section 2.3.4.2, proposes 2,100 new residential units in the Mountain Empire Subregion, which would result in an increase in vehicle trips on County roads which would increase emissions of $O_3$ precursors. In addition, construction of the proposed residential units would result in particulate matter emissions from off-road equipment, vehicles, and fugitive dust from surface disturbance. Additionally, proposed projects in Mexico would not be required to comply with the NAAQS or the CAAQS and would have the potential to result in an increase of criteria pollutant emissions for which the region is in non-attainment. The SDAB is already in non-attainment for $O_3$ and $PM_{10}$ and $PM_{2.5}$, therefore, implementation of the General Plan Update would result in pollutants which would be cumulatively considerable, requiring the incorporation of mitigation. Therefore, cumulative projects in the region would result in a significant cumulative impact associated with non-attainment of criteria pollutants. As discussed above in Section 2.3.3.3, the proposed project would result in a potentially significant direct impact associated with non-attainment criteria pollutants. In combination with other cumulative projects, the proposed project's contribution to this significant cumulative impact would be cumulatively considerable.

### *2.3.4.4 Issue 4: Sensitive Receptors*

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with sensitive receptors if, in combination, they would expose sensitive receptors to a substantial concentration of TACs or HAPs that would significantly increase cancer risk. Implementation of cumulative projects would have the potential to result in new sources of TACs or HAPs, especially diesel particulate matter from truck trips. In general, construction of cumulative projects would result in a temporary increase

in truck trips to haul construction materials to and from the site. In addition, new industrial or commercial developments would have the potential to result in permanent increases in truck trips to an area due to project operation. For example, the retail shopping center on the Viejas Reservation, included as a cumulative project in Table 1-12, Projects on Tribal Lands in San Diego County, would result in an increase in truck trips to and from the area surrounding the Viejas Reservation to transport retail merchandise for the commercial outlet center. This project would be required to comply with the federal NESHAPS program, which identifies 188 substances as HAPs and establishes requirements for these pollutants, including implementation of MACTs for major sources of HAPs. Also, placement of new sensitive receptors near existing TAC or HAP emissions would have the potential to result in a significant cumulative impact. An example of this situation would be the Magnolia Courts project, listed in Table 1-11, Projects Not Included in the Proposed General Plan Update Land Use Map. This project proposes 38 residential units in the Lakeside CPA which currently includes heavy industrial land uses and extractive operations and would accommodate additional industrial development under the General Plan Update. If the Magnolia Courts project were to be located in close proximity to industrial or extractive land uses, residents may be exposed to TACs of HAPs. Cumulative projects located in adjacent jurisdictions, including incorporated cities, adjacent counties, and State-managed lands, would be required to comply with the CARB's recommendations for siting new sensitive receptors, and stationary sources in the SDAB would be required to comply with emission thresholds for TACs or HAPs. However, some cumulative projects are located outside of the SDAB and/or may not be subject to State and local emissions regulations, such as projects located in Mexico or on tribal land. Therefore, cumulative projects in the region would result in a significant cumulative impact associated with sensitive receptors As discussed above in Section 2.3.3.4, the proposed project would result in a potentially significant impact associated with sensitive receptors. In combination with other cumulative projects, the proposed project's contribution to this significant cumulative impact would be cumulatively considerable.

### *2.3.4.5 Issue 5: Objectionable Odors*

Cumulative projects located in the San Diego region would have the potential to result in a significant cumulative impact associated with objectionable odors if, in combination, they would create objectionable odors or place sensitive receptors next to existing objectionable odors. As an example, the proposed Ramona Ridge Estates residential project, included as a cumulative project in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, would be located in the Ramona CPA, which also contains the Ramona Landfill, a potential source of objectionable odors. However, the Ramona Landfill is required to comply with APCD Rule 51, which prohibits objectionable odors from the landfill that would impact off-site land uses. Therefore, odor impacts to the proposed Ramona Ridge Estates project would not occur. Cumulative projects located in incorporated cities and on-going projects not included in the General Plan Update would be required to comply with APCD's rules and regulations regarding odor control. Some projects are located outside of the SDAB and/or may not be subject to similar emissions regulations, such as projects in Mexico, tribal projects, and projects in adjacent counties. However, odor impacts are localized in nature and cumulative projects would not combine to result in a cumulative odor impact. Therefore, the proposed General Plan Update would not contribute to a significant cumulative impact.

## 2.3.5 Significance of Impact Prior to Mitigation

The proposed General Plan Update would result in potentially significant direct and cumulative impacts associated with air quality violations, non-attainment criteria pollutants, and sensitive receptors. The proposed project would result in a less than significant direct impact associated with air quality plans and objectionable odors, and would not contribute to a significant cumulative impact associated with air quality plans or objectionable odors.

## 2.3.6 Mitigation

### *2.3.6.1 Issue 1: Air Quality Plans*

The proposed project would not conflict with or obstruct the implementation of the RAQS or SIP. Therefore, no mitigation is necessary.

### *2.3.6.2 Issue 2: Air Quality Violations*

Emissions of criteria pollutants associated with future development consistent with the General Plan Update would exceed the SLTs for $PM_{10}$, $PM_{2.5}$, $NO_X$, and VOCs. General Plan Update policies and mitigation measures (described below), have been identified that would minimize the potentially significant impact associated with air quality violations. Some mitigation measures have been identified that would reduce impacts associated with air quality violations to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures (and variations of these measures) were considered in attempting to reduce impacts associated with air quality to below a level of significance. However, the County has determined that these measures would be infeasible to implement for the reasons below; therefore, these mitigation measures would not be implemented.

- Require all construction activities to use equipment that is CARB certified Tier 3 or better. This measure could not be accomplished because it would require all construction contractors working within the County to turn over their existing equipment which remains usable, and would require a more stringent emissions standard than implemented by CARB. The CARB is currently implementing regulations that will require turnover of equipment to meet its regulatory standards for large vehicle fleets. The measure would limit which construction contractors would be allowed to work within the County and could result in undue costs to project applicants.

- Prohibit new development that would result in emissions from new vehicle trips that would exceed the screening level thresholds. This measure would result in restrictions on future development in areas identified for increased growth in the General Plan Update because, with current vehicle emissions standards, it would severely limit development densities. This would conflict with the project's objective to support a reasonable share of projected regional population growth, because it would prohibit new

development in the unincorporated County. In addition, if vehicle trips exceed screening level thresholds but a project is not proposing densities greater than what was expected by the general plan, those trips are accounted for in the RAQS and does not automatically mean the actual ambient air quality standards will be exceeded.

- Prohibit use of architectural coatings or other building materials that may result in emissions of VOCs. Only zero-VOC coatings and building materials would be allowed for use in the County. This measure would result in undue hardship on the entitlement process because most architectural coatings contain some VOCs and the measure would restrict the types of coatings that could be used to a limited type and number of formulations that may not be feasible for all applications. The VOC content in architectural coatings is regulated by the APCD, which has established a phase-in schedule for reduction of VOCs in accordance with the SIP requirements. The measure would also require the County to monitor and enforce the use of architectural coatings at all construction projects within its jurisdiction, which it does not have the funding or staffing available to accomplish.

- Encourage the construction of new development that would result in a reduction of vehicle trips because developers are able to demonstrate that they tie into an existing or planned alternative transportation network, such as transit (bus, train, trolley), bicycle network, walkways, and trails. This measure would result in restrictions on future development in areas identified for increased growth in the General Plan Update because not all areas of planned growth have an existing or planned alternative transportation network that new development could tie into. Implementation of this mitigation measure would conflict with the proposed project's objective to reinforce the vitality, local economy and individual character of existing communities by restricting future development to areas with existing alternative transportation networks, which excludes many rural areas.

- Require all applicants to provide on-site renewable energy systems, including solar, wind, geothermal, low-impact hydro power, biomass, and bio-gas. This measure would not be feasible because all applicants may not be able to provide renewable energy systems at all proposed locations. In addition, some energy systems may trigger additional regulatory requirements from the CPUC or CEC that would make individual projects infeasible to construct. Implementation of this measure would potentially increase infrastructure costs, which would conflict with the proposed project's objective to minimize public costs of infrastructure and services. However, in circumstances where feasible, applicants will be encouraged to provide on-site renewable energy systems.

- Install vegetated roofs that cover at least 50 percent of roof area. This measure would be infeasible because residential and commercial buyers may find vegetated roofs to be undesirable, and it places the burden of developing the vegetated roof on the project applicant. The measure may also add additional monitoring requirements on the County to verify that vegetated roofs are properly maintained.

- Provide a spur at nonresidential projects to use nearby rail for goods movement. This measure would not be feasible because it would depend on the rail system and the availability of rail transit to individual projects, most of which would not be located near railroad networks. Implementation of this measure would conflict with the proposed

project's objective to ensure that development accounts for physical constraints, since much of the unincorporated County has limited access to the existing rail system.

- Require the use of locally made building materials for construction projects. This measure would not be feasible because it would severely limit development projects, as some specialized building materials for projects may not be available locally. The measure would also require the County to monitor and enforce building material purchases at construction projects within its jurisdiction, which it does not have the funding or staffing available to accomplish.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with air quality violations as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with air quality violations, but not to a less than significant level.

**COS-14.1 Land Use Development Form.** Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.

**COS-14.2 Villages and Rural Villages.** Incorporate a mixture of uses within Villages and Rural Villages that encourage people to walk, bicycle, or use public transit to reduce air pollution and GHG emissions.

**COS-14.8 Minimize Air Pollution.** Minimize land use conflicts that expose people to significant amounts of air pollutants.

**COS-14.9 Significant Producers of Air Pollutants.** Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.

**COS-14.10 Low-Emission Construction Vehicles and Equipment.** Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.

**COS-15.1 Design and Construction of New Buildings.** Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

**COS-15.3 Green Building Programs.** Require all new County facilities and the renovation and expansion of existing County buildings to meet identified "green building" programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

**COS-15.4 Title 24 Energy Standards.** Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.

**COS-15.5 Energy Efficiency Audits.** Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.

**COS-16.2 Single-Occupancy Vehicles.** Support transportation management programs that reduce the use of single-occupancy vehicles.

**COS-16.3 Low-Emissions Vehicles and Equipment.** Require County operations and encourage private development to provide incentives (such as priority parking) for the use of low- and zero-emission vehicles and equipment to improve air quality and reduce GHG emissions. [Refer also to Policy M-9.3 (Preferred Parking) in the Mobility Element.]

**COS-20.3 Regional Collaboration.** Coordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with air quality violations, but not to below a significant level. The mitigation measures identified in Section 2.17.6.1, Issue 1: Compliance with AB 32, are applicable to this issue and are incorporated here by reference.

**Air-2.1** Provide incentives such as preferential parking for hybrids or alternatively fueled vehicles such as compressed natural gas (CNG) vehicles or hydrogen- or electric-powered vehicles. The County shall also establish programs for priority or free parking on County streets or in County parking lots for hybrids or alternatively fueled vehicles.

**Air-2.2** Replace existing vehicles in the County fleet as needed with the cleanest vehicles commercially available that are cost-effective and meet vehicle use needs.

**Air-2.3** Implement transportation fleet fueling standards to improve the number of alternatively fueled vehicles in the County fleet.

**Air-2.4** Provide incentives to promote the siting or use of clean air technologies where feasible. These technologies shall include, but not be limited to, fuel cell technologies, renewable energy sources, and hydrogen fuel.

**Air-2.5** Require that the following measures be implemented on all construction projects where project emissions are above the SLTs:

- Multiple applications of water during grading between dozer/scraper passes
- Paving, chip sealing or chemical stabilization of internal roadways after completion of grading

- Use of sweepers or water trucks to remove "track-out" at any point of public street access
- Termination of grading if winds exceed 25 miles per hour
- Stabilization of dirt storage piles by chemical binders, tarps, fencing or other erosion control
- Use of low-sulfur fuels in construction equipment
- Use of low-VOC paints
- Projects exceeding SLTs will require ten percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, III, IV equipment. Equipment is certified if it meets emission standards established by the EPA for mobile non-road diesel engines of almost all types. Standards established for hydrocarbons, oxides of nitrogen ($NO_X$), carbon monoxide, and particulate matter. Tier I standards are for engines over 50 hp (such as bulldozers) built between 1996 and 2000, and engines under 50 hp (such as lawn tractors) built between 1999 and 2000. Tier II standards are for all engine sizes from 2001 to 2006, and Tier III standards are for engines rated over 50 hp from 2006 to 2008 (EPA 1998). Tier IV standards apply to engines of all sizes built in 2008 or later. Standards are increasingly stringent from Tier I to Tier IV (EPA 2004).

**Air-2.6** Use County Guidelines for Determining Significance for Air Quality to identify and mitigate adverse environmental effects on air quality.

**Air-2.7** Implement County Air Pollution Control District (APCD) regulations for air emissions from all sources under its jurisdiction.

**Air-2.8** Require NSRs to prevent permitting projects that are "major sources."

**Air-2.9** Implement the Grading, Clearing, and Watercourses Ordinance by requiring all clearing and grading to be conducted with dust control measures

**Air-2.10** Revise Board Policy F-50 to strengthen the County's commitment and requirement to implement resource-efficient design and operations for County-funded renovation and new building projects. This could be achieved by making the guidelines within the policy mandatory rather than voluntary.

**Air-2.11** Implement County Regional Air Quality Strategy (RAQS) to attain State air quality standards for $O_3$.

**Air-2.12** Revise Board Policy G-15 to require County facilities to comply with Silver Leadership in Energy and Environmental Design (LEED) standards or other equivalent Green Building rating systems.

**Air-2.13** Revise Board Policy G-16 to require the County to:

- Adhere to the same or higher standards it would require from the private sector when locating and designing facilities concerning environmental issues and sustainability; and
- Require government contractors to use low emission construction vehicles and equipment.

### *2.3.6.3 Issue 3: Non-Attainment Criteria Pollutants*

Emissions of criteria pollutants associated with future development consistent with the General Plan Update would result in a cumulatively significant impact associated with $PM_{10}$ and $PM_{2.5}$, and $O_3$ precursors under CAAQS. The General Plan Update policies and mitigation measures identified above in Section 2.3.6.2 for Issue 2: Air Quality Violations would minimize impacts associated with non-attainment criteria pollutants. However, the General Plan policies and feasible mitigation measures would not fully reduce impacts to below a level of significance. As described above in Section 2.3.6.2, additional mitigation measures were considered in attempting to reduce impacts associated with air quality violations to a less than significant level; however, the County determined that these measures would be infeasible to implement for the reasons outlined above. Therefore, the infeasible mitigation measures identified in Section 2.3.6.2 would not be implemented, and impacts would remain significant and unavoidable from the General Plan Update standpoint. However, future development projects may be able to mitigate emissions associated with their individual development.

### *2.3.6.4 Issue 4: Sensitive Receptors*

Future development consistent with the General Plan Update would result in potentially significant emissions of diesel particulate matter that would result in a potentially significant impact to sensitive receptors. Mitigation Measure Air-4.1 (discussed below) has been identified that would minimize the potentially significant impact associated to sensitive receptors. Some additional mitigation measures have been identified that would reduce impacts associated with sensitive receptors to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of both infeasible and feasible mitigation measures identified for the proposed project is provided below. The General Plan Update does not include policies relating specifically to sensitive receptors.

**Infeasible Mitigation Measures**

The following measures (and variations of these measures) were considered in attempting to reduce impacts associated with sensitive receptors to below a level of significance. However, the County has determined that these measures would be infeasible to implement for the reasons below; therefore, these mitigation measures would not be implemented.

- Require that all off-road or non-road diesel engines, such as those associated with construction or extraction operations, be replaced by an alternative power source, such as electricity. This measure would limit which construction contractors would be allowed to work within the County because not all contractors have alternative power source equipment available and the measure could result in undue costs to the project applicant. Limiting the construction contractors allowed to work within the County would

conflict with the proposed project's objective to reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment and recreational opportunities. In addition, the County cannot monitor and enforce all construction activities within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from off-road construction equipment.

- Require all diesel trucks that travel on County roads to be equipped with filters or other devices that would limit diesel emissions to below a significant level. This measure is considered to be infeasible the County cannot monitor all diesel traffic within its jurisdiction due to funding and staffing deficiencies and ultimately because CARB has the responsibility of regulating emissions from vehicles. Implementing this measure would result in increased public costs, which would conflict with the proposed project's objective to minimize public costs of infrastructure and services.

Because the measures listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with sensitive receptors as compared to the proposed project.

**Mitigation Measures**

The following mitigation measure would reduce impacts associated with impacts to sensitive receptors, but not to below a significant level.

**Air-4.1** Use the policies set forth in the CARB's Land Use and Air Quality Handbook (CARB 2005) as a guideline for siting sensitive land uses. Implementation of this measure will ensure that sensitive land uses such as residences, schools, day care centers, playgrounds, and medical facilities are sited appropriately to minimize exposure to emissions of TACs.

### *2.3.6.5 Issue 5: Objectionable Odors*

The proposed project would not result in a significant direct or cumulative impact associated with objectionable odors. Therefore, no mitigation is necessary.

## 2.3.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.3.7.1 Issue 1: Air Quality Plans*

The proposed General Plan Update would not conflict with or obstruct implementation of the RAQS or SIP. Therefore, impacts would be less than significant. Additionally, the proposed project would not contribute to a significant cumulative impact.

### 2.3.7.2 Issue 2: Air Quality Violations

The proposed General Plan Update would have the potential to result in a violation of an air quality standard. Therefore, impacts would be potentially significant. Additionally, the proposed project would contribute to a significant cumulative impact. The proposed General Plan Update policies and mitigation measures, in combination with the State and local programs, would reduce direct and cumulative impacts to air quality violations; however, not to below a significant level. Impacts would remain significant and unavoidable. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

### 2.3.7.3 Issue 3: Non-Attainment Criteria Pollutants

The proposed General Plan Update would have the potential to result in a cumulatively considerable net increase in pollutants for which the SDAB is listed as non-attainment. Therefore, impacts would be potentially significant. This is both a direct and cumulative impact. The proposed General Plan Update policies and mitigation measures, in combination with compliance with the RAQS and SIP, would reduce direct and cumulative impacts associated with non-attainment criteria pollutants; however, not to a level below significance. Impacts would remain significant and unavoidable. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

### 2.3.7.4 Issue 4: Sensitive Receptors

The proposed General Plan Update would have the potential to result in the exposure of sensitive receptors to substantial amounts of TACs or HAPs that would result in a potentially significant increase in cancer risk. Therefore, impacts would be potentially significant. Additionally, the proposed project would contribute to a significant cumulative impact. Mitigation measure Air-4.1 would reduce direct and cumulative impacts to sensitive receptors; however, not to below a significant level. Impacts would remain significant and unavoidable. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

### 2.3.7.5 Issue 5: Objectionable Odors

The proposed General Plan Update would comply with APCD regulations that require odor sources to reduce impacts to nearby receptors. Therefore, impacts would be less than significant. Additionally, the proposed project would not contribute to a significant cumulative impact.

## Table 2.3-1. Air Quality Descriptors

| Air Quality Index Levels of Health Concern | Numerical Value | Meaning |
|---|---|---|
| Good | 0-50 | Air quality is considered satisfactory, and air pollution poses little or no risk. |
| Moderate | 51-100 | Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution. |
| Unhealthy for Sensitive Groups | 101-150 | Members of sensitive groups may experience health effects. The general public is not likely to be affected. |
| Unhealthy | 151-200 | Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects. |
| Very Unhealthy | 201-300 | Health alert: everyone may experience more serious health effects. |
| Hazardous | > 300 | Health warnings of emergency conditions. The entire population is more likely to be affected. |

Source: AirNow 2008

## Table 2.3-2. Federal and State Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards | Federal Standards | |
|---|---|---|---|---|
| | | Concentration | Primary | Secondary |
| Ozone ($O_3$) | 8 Hour | 0.070 ppm (137 µg/m$^3$) | 0.075 ppm (147 µg/m$^3$) | Same as Primary Standard |
| | 1 Hour | 0.09 ppm (180 µg/m$^3$) | --- | |
| Respirable Particulate Matter ($PM_{10}$) | Annual Arithmetic Mean | 20 µg/m$^3$ | --- | Same as Primary Standard |
| | 24 Hour | 50 µg/m$^3$ | 150 µg/m$^3$ | |
| Fine Particulate Matter ($PM_{2.5}$) | Annual Arithmetic Mean | 12 µg/m$^3$ | 15 µg/m$^3$ | Same as Primary Standard |
| | 24 Hour | No Separate State Standard | 35 µg/m$^3$ | |
| Carbon Monoxide (CO) | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m$^3$) | --- | None |
| | 8 Hour | 9.0 ppm (10 mg/m$^3$) | 9.0 ppm (10 mg/m$^3$) | |
| | 1 Hour | 20 ppm (23 mg/m$^3$) | 35 ppm (40 mg/m$^3$) | |
| Nitrogen Dioxide ($NO_2$) | Annual Arithmetic Mean | 0.030 ppm (56 µg/m$^3$) | 0.053 ppm(100 µg/m$^3$) | Same as Primary Standard |
| | 1 Hour | 0.18 ppm (338 µg /m$^3$) | --- | |
| Lead (Pb) | Calendar Quarter | --- | 1.5 µg/m$^3$ | Same as Primary Standard |
| | 30 Day Average | 1.5 µg/m$^3$ | --- | |
| | 3-month Rolling Average | --- | 0.15 µg/m$^3$ | |
| Sulfur Dioxide ($SO_2$) | Annual Arithmetic Mean | --- | 0.030 ppm (80 µg/m$^3$) | --- |
| | 24 Hour | 0.04 ppm (105 µg/m$^3$) | 0.14 ppm (365 µg/m$^3$) | --- |
| | 3 Hour | --- | --- | 0.5 ppm (1300 µg/m$^3$) |
| | 1 Hour | 0.25 ppm (655 µg/m$^3$) | --- | --- |
| Visibility Reducing Particles | 8 Hour | Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles. | No Federal Standards | |
| Sulfates ($SO_4^{2}$) | 24 Hour | 25 µg/m$^3$ | No Federal Standards | |
| Hydrogen Sulfide ($H_2S$) | 1 Hour | 0.03 ppm (42 µg/m$^3$) | No Federal Standards | |
| Vinyl Chloride | 24 Hour | 0.01 ppm (26 µg/m$^3$) | No Federal Standards | |

ppm=parts per million; mg/m$^3$=milligrams per cubic meter; µg/m$^3$=micrograms per cubic meter
Source: CARB 2009

## Table 2.3-3. Criteria Pollutants and Pollutants of Concern, Sources, Recognized Health Effects and Controls

| Pollutant | Sources | Health Effects | Typical Controls |
|---|---|---|---|
| Ozone ($O_3$) | $O_3$ is considered a photochemical oxidant, which is a chemical that is formed when VOCs and $NO_X$, which are by-products of combustion, react in the presence of ultraviolet light, including sunlight. | Tropospheric (ground level) $O_3$ is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to $O_3$. | Reduce motor vehicle ROG and $NO_X$ emissions through emission standards, reformulated fuels, inspections programs, and reduced vehicle use. Limit ROG emissions from commercial operations, gasoline refueling facilities, and consumer products. Limit ROG and $NO_X$ emissions from industrial sources such as power plants and manufacturing facilities. |
| Respirable Particulate Matter ($PM_{10}$) less than 10 microns in diameter and Fine Particulate Matter ($PM_{2.5}$) less than 2.5 microns in diameter | $PM_{10}$ refers to particulate matter with an aerodynamic diameter of 10 microns or less. $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. $PM_{10}$ and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, combustion, tire and brake wear, construction operations and windblown dust. | Particulate matter in this size range has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. $PM_{10}$ and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. | Control dust sources, industrial particulate emissions, wood burning stoves and fireplaces. Reduce secondary pollutants which react to form $PM_{10}$. Conserve energy. Reduce combustion emissions from motor vehicles, equipment, industries, and agricultural and residential burning. Precursor controls, like those for ozone, reduce fine particle formation in the atmosphere. |
| Carbon Monoxide (CO) | CO is a product of combustion, and the main source of CO in the SDAB is from motor vehicle exhaust. | CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision. | Control motor vehicle and industrial emissions. Use oxygenated gasoline during winter months. Conserve energy. |
| Nitrogen Dioxide ($NO_2$) | $NO_2$ is also a by-product of fuel combustion, and is formed both directly as a product of combustion and in the atmosphere through the reaction of NO with oxygen. | $NO_2$ is a respiratory irritant and may affect those with existing respiratory illness, including asthma. $NO_2$ can also increase the risk of respiratory illness. | Control motor vehicle and industrial combustion emissions. Conserve energy. |

**Table 2.3-3 (Continued)**

| Pollutant | Sources | Health Effects | Typical Controls |
|---|---|---|---|
| Lead (Pb) | Pb in the atmosphere occurs as particulate matter. Pb has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. | Pb has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Pb is also classified as a probable human carcinogen. | Control metal smelters. Ban lead in gasoline or paint. |
| Sulfur Dioxide ($SO_2$) | $SO_2$ is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of $SO_2$ are found near large industrial sources. | $SO_2$ is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to $SO_2$ can cause respiratory illness and aggravate existing cardiovascular disease. | Reduce use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy. |
| Sulfates ($SO_4^{2}$) | Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to $SO_2$ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of $SO_2$ to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. | Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and they are usually acidic, can harm ecosystems and damage materials and property. | See $SO_2$ |
| Hydrogen Sulfide ($H_2S$) | $H_2S$ is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. | Breathing $H_2S$ at levels above the standard would result in exposure to a very disagreeable odor. | Control emissions from geothermal power plants, petroleum production and refining, sewers, and sewage treatment plants. |
| Visibility Reducing Particulates | See $PM_{2.5}$ | Reduces visibility (e.g., obscures mountains and other scenery), and reduces airport safety. | See $PM_{2.5}$ |

**Table 2.3-3 (Continued)**

| Pollutant | Sources | Health Effects | Typical Controls |
|---|---|---|---|
| Vinyl Chloride | Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial breakdown of chlorinated solvents. | Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans. | Control emissions from plants that manufacture or process vinyl chloride, installation of monitoring systems. |
| Toxic Air Contaminants (TAC) | Combustion engines (stationary and mobile), diesel combustion, storage and use of TAC-containing substances (e.g., gasoline, or lead smelting) | Depends on the TAC, but may cause cancer, mutagenic and/or teratogenic effects, and other acute or chronic health effects. | Implement Toxic Best Available Control Technologies (T-BACT), and limit emissions from known sources. |

Source: EPA 2007, CARB 2009, and DPLU 2007g

## Table 2.3-4. Summary of Ambient Background Data – San Diego Air Basin

| Pollutant | Averaging Time | Parameter | 2007 | 2006 | 2005 | 2004 | 2003 | NAAQS/ CAAQS |
|---|---|---|---|---|---|---|---|---|
| Ozone ($O_3$) | 1 hour | Maximum Concentration | 13 | 12 | 11 | 13 | 13 | |
| | NAAQS | No. of Exceedances | 1 | 0 | 0 | 1 | 1 | 12 pphm(1) |
| | CAAQS | No. of Exceedances | 18 | 23 | 16 | 12 | 23 | 9 pphm |
| | 8 hour | Maximum Concentration | 9 | 10 | 9 | 10 | 10 | |
| | NAAQS | No. of Exceedances | 7 | 14 | 5 | 8 | 6 | 8.5 pphm(2) |
| | CAAQS | No. of Exceedances | 43 | 68 | N/A | N/A | N/A | 7.0 pphm(3) |
| Carbon Monoxide (CO) | 1 hour | Maximum Concentration | 8.7 | 10.8 | 7.9 | 6.9 | 12.7 | |
| | NAAQS | No. of Exceedances | 0 | 0 | 0 | 0 | 0 | 20 ppm |
| | CAAQS | No. of Exceedances | 0 | 0 | 0 | 0 | 0 | 35 ppm |
| | 8 hour | Maximum Concentration | 5.2 | 3.6 | 4.7 | 3.8 | 10.6 | |
| | NAAQS | No. of Exceedances | 0 | 0 | 0 | 0 | 0 | 9.0 ppm |
| | CAAQS | No. of Exceedances | 0 | 0 | 0 | 0 | 0 | 9 ppm |
| Nitrogen Dioxide ($NO_2$) | 1 hour | Maximum Concentration | 0.101 | 0.097 | 0.109 | 0.125 | 0.148 | |
| | CAAQS | No. of Exceedances | 0 | 0 | 0 | 0 | 0 | 0.25 ppm(4) |
| | Annual NAAQS | Maximum Concentration | 0.022 | 0.024 | 0.024 | 0.023 | 0.020 | 0.053 ppm(4) |
| Respirable Particulate Matter ($PM_{10}$) | 24 hour | Maximum Concentration | 143 | 133 | 155 | 137 | 130 | |
| | NAAQS | No. of Exceedances(7) | 2 | 0 | 1 | 0 | 1 | 50 µg/m$^3$ |
| | CAAQS | No. of Exceedances(7) | 49 | 41 | 37 | 41 | 37 | 20 µg/m$^3$ |
| | Annual NAAQS(5)/ CAAQS | Maximum Concentration | 47 | 54 | 58 | 51 | 53 | 150 µg/m$^3$/ 50 µg/m$^3$ |
| Fine Particulate Matter ($PM_{2.5}$) | 24 hour | Maximum Concentration | 52 | 63 | 44 | 67 | 51 | |
| | NAAQS(6) | No. of Exceedances(7) | 5 | 1 | 0 | 0 | 4 | 35 µg/m$^3$ |
| | Annual NAAQS/ CAAQS | Maximum Concentration | 12 | 13 | 16 | 14 | 15 | 15 µg/m$^3$/ 12 µg/m$^3$ |

(1) Previous 1-hour NAAQS of 12 pphm was rescinded on June 15, 2005.
(2) 8-hour NAAQS of 8.5 pphm was lowered to 7.5 pphm on May 27, 2008.
(3) 8-hour CAAQS of 7.0 pphm was adopted in 2006.
(4) 1-hour CAAQS of 0.25 ppm was lowered to 0.18 ppm effective March 20, 2008. A new annual standard of 0.030 ppm was also adopted on that date.
(5) Annual NAAQS of 50 µg/m$^3$ was rescinded on December 17, 2006.
(6) 24-hour NAAQS of 65 µg/m$^3$ was lowered to 35 µg/m$^3$ on December 17, 2006.
(7) Measured exceedances.

pphm = parts per hundred million; ppm=parts per million; mg/m$^3$=milligrams per cubic meter; µg/m$^3$=micrograms per cubic meter

Source: SRA 2009

## Table 2.3-5. San Diego County Air Basin Attainment Status by Pollutant[1]

| Pollutant | Averaging Time | Federal Standards | California Standards |
|---|---|---|---|
| Ozone ($O_3$) | 8 Hour | Non-attainment | Non-attainment |
| | 1 Hour | No Federal Standard | Non-attainment |
| Respirable Particulate Matter ($PM_{10}$) | Annual Arithmetic Mean | Unclassifiable | Non-attainment |
| | 24 Hour | Unclassifiable | Non-attainment |
| Fine Particulate Matter ($PM_{2.5)}$ | Annual Arithmetic Mean | Attainment | Non-attainment |
| | 24 Hour | Attainment | Non-attainment |
| Carbon Monoxide (CO) | 8 Hour | Attainment | Attainment |
| | 1 Hour | Attainment | Attainment |
| Nitrogen Dioxide ($NO_2$) | Annual Arithmetic Mean | Attainment | Attainment |
| | 1 Hour | Attainment | Attainment |
| Lead (Pb) | Calendar Quarter | No Federal Standard | Attainment |
| | 30 Day Average | Attainment | No State Standard |
| Sulfur Dioxide ($SO_2$) | Annual Arithmetic Mean | Attainment | Attainment |
| | 24 Hour | Attainment | Attainment |
| | 3 Hour | Attainment | Attainment |
| | 1 Hour | Attainment | Attainment |
| Sulfates ($SO_4^2$) | 24 Hour | No Federal Standard | Attainment |
| Hydrogen Sulfide ($H_2S$) | 1 Hour | No Federal Standard | Unclassified[2] |
| Visibility Reducing Particulates | 8 Hour (10:00 a.m. to 6:00 p.m., PST) | No Federal Standard | Unclassified[2] |

[1] Data reflects status as of March 19, 2007.
[2] Unclassified; indicates data are not sufficient for determining attainment or nonattainment.
Source: APCD 2007b

## Table 2.3-6. Emissions Inventories

| Mobile Sources | Stationary Sources | Area-Wide Sources | Natural Sources |
|---|---|---|---|
| On-Road<br>Passenger Cars<br>Trucks<br>Motorcycles<br>Urban Buses<br>School Buses<br>Motor Homes<br><br>Other Mobile<br>Aircraft<br>Trains<br>Ships & Commercial Boats<br>Recreational Boats<br>Off-road Recreational Vehicles<br>Off-road Equipment<br>Farm Equipment<br>Fuel Storage & Handling | Fuel Combustion<br>Electric Utilities Cogeneration<br>Manufacturing & Industrial<br>Food & Agriculture Processing<br>Service & Commercial<br>Waste Disposal<br>Sewage Treatment<br>Landfills<br>Incinerators<br>Soil Remediation<br>Cleaning & Surface Coatings<br>Laundering<br>Degreasing<br>Coatings & Related Solvents<br>Printing<br>Adhesives & Sealants<br><br>Petroleum Production & Marketing<br><br>Industrial Processes<br>Chemical<br>Food & Agriculture<br>Mineral Processes<br>Metal Processes<br>Wood & Paper | Solvent Evaporation<br>Consumer Products<br>Architectural Coatings<br>Pesticides / Fertilizers<br>Asphalt Paving / Roofing<br><br>Miscellaneous Processes<br>Residential Fuel Combustion<br>Farming Operations<br>Construction and Demolition<br>Paved Road Dust<br>Unpaved Road Dust<br>Fugitive Windblown Dust<br>Fires<br>Waste Burning/Disposal<br>Cooking | Biogenic<br>Geogenic<br>Wildfires<br>Windblown Dust |

Source: DPLU 2007g

## Table 2.3-7. RAQS VOC Control Measures

| Control Measure | SDAPCD Rule Number | Adoption Date | Full Implementation Date | Estimated Emission Reductions (tons/day) |
|---|---|---|---|---|
| Enhanced Vapor Recovery | 61.3.1<br>61.4.1 | 2006 | 2009 | 2 |
| Further Control of Solvent Cleaning | 67.6.1<br>67.6.2 | 2007 | 2008 | 1 |

Source: APCD 2009

## Table 2.3-8. RAQS $NO_X$ Control Measures

| Control Measure | SDAPCD Rule Number | Adoption Date | Full Implementation Date | Estimated Emission Reductions (tons/day) |
|---|---|---|---|---|
| Further Control of Stationary Combustion Turbines | 69.3.1 | 2009 | 2011 | 0.19 average<br>1.65 peak |
| Small and Medium Boilers, Steam Generators, and Process Heaters Between 600,000 and 5 million British Thermal Unit (BTU)/hour | 69.2.1<br>69.2.2 | 2009 | 2029 | 0.4 |
| Further Control of Residential Water Heaters Smaller than 75,000 BTU/hour | 69.5 | Delayed | 10 years after adoption | 0.7 |

Source: APCD 2009

## Table 2.3-9. General Plan Update Area-wide and Vehicular Emissions

| Source | VOC | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Tons/day, Summer** | | | | | | |
| Natural Gas Usage | 0.148 | 2.012 | 1.554 | 0.000 | 0.004 | 0.004 |
| Landscaping | 0.180 | 0.011 | 1.002 | 0.000 | 0.003 | 0.003 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 1.782 | - | - | - | - | - |
| Vehicular Emissions | 23.58 | 194.96 | 34.50 | 0.62 | 7.723[(1)] | 4.08 |
| **Total** | **27.11** | **196.98** | **37.06** | **0.62** | **0.01** | **4.09** |
| **Tons/day, Winter** | | | | | | |
| Natural Gas Usage | 0.148 | 2.012 | 1.554 | 0.000 | 0.004 | 0.004 |
| Hearth | 3.221 | 0.230 | 7.054 | 0.018 | 1.072 | 1.032 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 1.782 | - | - | - | - | - |
| Vehicular Emissions | 24.52 | 191.30 | 36.37 | 0.58 | 7.723[(1)] | 4.09 |
| **Total** | **31.09** | **193.54** | **44.98** | **0.60** | **1.08** | **5.13** |
| **Tons/day, Annual (Average)** | | | | | | |
| Natural Gas Usage | 0.148 | 2.012 | 1.554 | 0.000 | 0.004 | 0.004 |
| Hearth | 0.727 | 0.025 | 1.573 | 0.004 | 0.239 | 0.230 |
| Landscaping | 0.089 | 0.006 | 0.494 | 0.000 | 0.001 | 0.001 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 1.782 | - | - | - | - | - |
| Vehicular Emissions | 22.85 | 193.09 | 33.88 | 0.59 | 7.723[(1)] | 4.09 |
| **Total** | **27.01** | **195.13** | **37.50** | **0.59** | **0.24** | **4.33** |

[(1)] Calculated based on assuming that tire and brake wear $PM_{2.5}$ fraction of $PM_{10}$ is 21 percent, exhaust $PM_{2.5}$ fraction of $PM_{10}$ is 99 percent.

Source: SANDAG 2008e, based on SANDAG projections of emissions for the year 2030.

## Table 2.3-10. Comparison of Current and Future Vehicular Emissions

| Year | ROG | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Tons/day, Summer** | | | | | | |
| 2007 | 53.30 | 554.77 | 105.59 | 0.49 | 6.786[(1)] | 3.96 |
| 2030 | 23.58 | 194.96 | 34.50 | 0.62 | 7.723[(1)] | 4.08 |
| **Net Increase (Decrease)** | **(29.72)** | **(359.81)** | **(71.09)** | **0.13** | **0.937** | **0.12** |
| **Tons/day, Winter** | | | | | | |
| 2007 | 57.10 | 553.36 | 112.43 | 0.46 | 6.797[(1)] | 3.97 |
| 2030 | 24.52 | 191.30 | 36.37 | 0.58 | 7.723[(1)] | 4.09 |
| **Net Increase (Decrease)** | **(32.58)** | **(362.06)** | **(76.06)** | **0.12** | **0.926** | **0.12** |
| **Tons/day, Annual (Average)** | | | | | | |
| 2007 | 52.93 | 557.40 | 103.78 | 0.47 | 6.786[(1)] | 3.97 |
| 2030 | 22.85 | 193.09 | 33.88 | 0.59 | 7.723[(1)] | 4.09 |
| **Net Increase (Decrease)** | **(30.08)** | **(364.31)** | **(69.90)** | **0.12** | **0.937** | **0.12** |

(1) Calculated based on assuming that tire and brake wear $PM_{2.5}$ fraction of $PM_{10}$ is 21 percent, exhaust $PM_{2.5}$ fraction of $PM_{10}$ is 99 percent.

Source: SANDAG 2008e

## Table 2.3-11. Mitigated Area-wide and Vehicular Emissions

| Source | ROG | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Tons/day, Summer** | | | | | | |
| Natural Gas Usage | 0.118 | 1.610 | 1.243 | 0.000 | 0.003 | 0.003 |
| Landscaping | 0.144 | 0.009 | 0.802 | 0.000 | 0.002 | 0.002 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 0.809 | - | - | - | - | - |
| Vehicular Emissions | 23.58 | 194.96 | 34.50 | 0.62 | 7.723[a] | 4.08 |
| **Total** | **26.07** | **196.58** | **36.55** | **0.62** | **0.01** | **4.09** |
| **Tons/day, Winter** | | | | | | |
| Natural Gas Usage | 0.118 | 1.610 | 1.243 | 0.000 | 0.003 | 0.003 |
| Hearth | 3.221 | 0.230 | 7.054 | 0.018 | 1.072 | 1.032 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 0.809 | - | - | - | - | - |
| Vehicular Emissions | 24.52 | 191.30 | 36.37 | 0.58 | 7.723[a] | 4.09 |
| **Total** | **30.08** | **193.14** | **44.67** | **0.60** | **1.08** | **5.13** |
| **Tons/day, Annual (Average)** | | | | | | |
| Natural Gas Usage | 0.118 | 1.610 | 1.243 | 0.000 | 0.003 | 0.003 |
| Hearth | 0.727 | 0.025 | 1.573 | 0.004 | 0.239 | 0.230 |
| Landscaping | 0.071 | 0.004 | 0.395 | 0.000 | 0.001 | 0.001 |
| Consumer Products | 1.416 | - | - | - | - | - |
| Architectural Coatings | 0.809 | - | - | - | - | - |
| Vehicular Emissions | 22.85 | 193.09 | 33.88 | 0.59 | 7.723[a] | 4.09 |
| **Total** | **25.99** | **194.73** | **37.09** | **0.59** | **0.24** | **4.32** |

(1) Calculated based on assuming that tire and brake wear $PM_{2.5}$ fraction of $PM_{10}$ is 21 percent, exhaust $PM_{2.5}$ fraction of $PM_{10}$ is 99 percent.

Source: SANDAG 2008e.

## Table 2.3-12. Screening-Level Thresholds for Air Quality Impact Analysis

| Pollutant | Total Emissions |
|---|---|
| **Construction Emissions** | **Pounds per Day** |
| Respirable Particulate Matter ($PM_{10}$) | 100 |
| Fine Particulate Matter ($PM_{2.5}$) | 55 |
| Oxides of Nitrogen ($NO_X$) | 250 |
| Oxides of Sulfur ($SO_X$) | 250 |
| Carbon Monoxide (CO) | 550 |
| Volatile Organic Compounds (VOCs)[(1)] | 75 |

| Operational Emissions | Pounds Per Hour | Pounds per Day | Tons per Year |
|---|---|---|---|
| Respirable Particulate Matter ($PM_{10}$) | --- | 100 | 15 |
| Fine Particulate Matter ($PM_{2.5}$) | --- | 55 | 10 |
| Oxides of Nitrogen ($NO_X$) | 25 | 250 | 40 |
| Oxides of Sulfur ($SO_X$) | 25 | 250 | 40 |
| Carbon Monoxide (CO) | 100 | 550 | 100 |
| Lead and Lead Compounds | --- | 3.2 | 0.6 |
| Volatile Organic Compounds (VOC) | --- | 75 | 13.7 |

| Toxic Air Contaminant Emissions | |
|---|---|
| Excess Cancer Risk | 1 in 1 million without Best Available Control Technology (T-BACT)<br>10 in 1 million with T-BACT |
| Non-Cancer Hazard | 1.0 |

[(1)] Source: DPLU 2007g

## Table 2.3-13. CARB Recommendations on Siting New Sensitive Land Uses

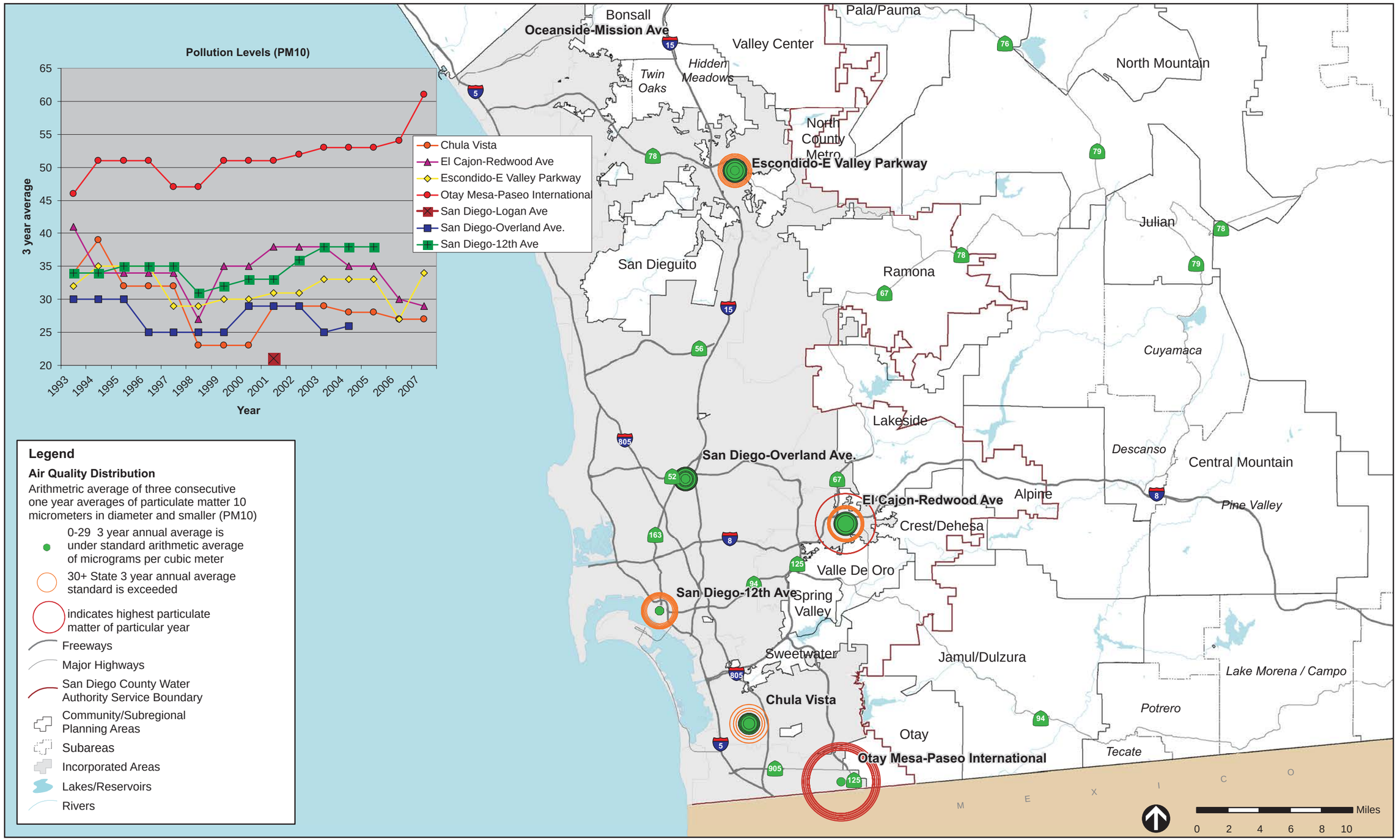
| Source Category | Advisory Recommendations |
|---|---|
| Freeways and High-Traffic Roads | Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. |
| Distribution Centers | Avoid siting new sensitive land uses within 1,000 feet of a distribution center that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week.<br><br>Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points. |
| Rail Yards | Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.<br><br>Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. |
| Ports | Avoid siting new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the CARB on the status of pending analyses of health risks. |
| Refineries | Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation |
| Chrome Platers | Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. |
| Dry Cleaners Using Perchloroethylene | Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district.<br><br>Do not site new sensitive land uses in the same building with perc dry cleaning operations. |
| Gasoline Dispensing Facilities | Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities. |

Source: CARB 2005

**Table 2.3-14. TAC-Emitting Facilities within the SDAB 2007**

| TAC-Emitting Facility | Location |
|---|---|
| Cabrillo Power II, LLC | City of San Diego |
| Cubic Corporation | City of San Diego |
| Salk Institute | City of San Diego |
| Flame Spray, Inc. | City of San Diego |
| Escondido Plating | City of Escondido |
| Plavan Petroleum, Inc. | City of Escondido |
| Specialized Processing Co., Inc. | City of El Cajon |
| Kyocera America, Inc. | City of San Diego |
| Gas Recovery System Inc. | City of Santee |
| Shelter Island Boat Yard | City of San Diego |
| Zoological Society of San Diego | City of San Diego |
| CA Commercial Asphalt – Hollister | City of San Diego |
| CP Manufacturing | City of National City |
| Bardon Enterprises | City of Santee |
| SDG&E Palomar Energy Center | City of Escondido |
| Agri Service | City of Oceanside |

Source: APCD 2008




Source: California Air Resource Board, 2008; County of San Diego, 2008

**SAN DIEGO AIR QUALITY MONITORING STATIONS AND ANNUAL AVERAGE $PM_{10}$ EMISSIONS** **FIGURE 2.3-1**

# 2.4 Biological Resources

This section of the EIR describes the existing biological resources, including vegetation communities, sensitive plants and wildlife, and wildlife corridors in the unincorporated County and analyzes the potential physical environmental impacts resulting from land uses and development under the proposed County General Plan Update. The majority of information in this section was provided by the County of San Diego General Plan, Conservation and Open Space Element Background Report (DPLU 2007b) and Guidelines for Determining Significance, Biological Resources (DPLU 2008d).

A summary of the biological resources impacts identified in Section 2.4.3 is provided below.

**Biological Resources Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Special Status Species | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 2 | Riparian Habitat and Other Sensitive Natural Communities | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 3 | Federally Protected Wetlands | Potentially Significant | Less Than Significant | Less Than Significant |
| 4 | Wildlife Movement Corridors | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 5 | Local Policies and Ordinances | Less Than Significant | Less Than Significant | Less Than Significant |
| 6 | Habitat Conservation Plans and Natural Community Conservation Plans | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.4.1 Existing Conditions

### *2.4.1.1 General Biological Setting*

San Diego County is recognized as one of the most important biological areas in the U.S. The diversity of species found in the unincorporated County can be attributed to the variety of vegetation and habitats associated with the region's range of micro-climates, topography, soils, and other natural features. The unincorporated lands comprise the largest geographical area within the County boundary with natural features that include lagoons, foothills, mountain ranges, and deserts.

The physical and climatic conditions found in the unincorporated County provide for a wide variety of habitats and biological communities. Biological communities are associations of plants, animals, fungi, and microbes that can occur separately or be intermixed. Because each biological community has different characteristics, they often support unique assemblages of species.

The County's unique attributes have resulted in a relatively large number of endemic species in the area (e.g., species that are only found in a limited geographic location). For example, 26

plant species in the County are found nowhere else in the world. As a result of the limited distribution of many of the County's species, combined with habitat loss from urban, rural, and agricultural development, the County is home to an exceptional number of rare, threatened, endangered, or otherwise sensitive species. Invasive plant and animal species have the potential to disrupt native habitat regeneration and pose a threat to conservation of native habitat and endemic species.

### *2.4.1.2 Vegetation Communities*

Habitats are associations of communities composed of plants, animals, insect species, and biotic elements such as fungi, bacteria, and other microbes. Although they would have the potential to occur adjacent to or even intermixed within one another, the habitats have differing characteristics that support unique assemblages of plants and animals. Habitats are generally referred to and named by the vegetation community, which provides structure to the above-ground portions of the habitat.

The multiple vegetation communities within the County have been aggregated down to 20 vegetation types, which are described below (Oberbauer 2005). Figure 2.4-1 shows the distribution of these communities throughout the County.

**Chaparral**

Chaparral is one of the most widespread vegetation communities in the unincorporated County, with many distinct types. The chaparral type at any one location is determined by the dominant soils, elevation, rainfall, and other conditions. While various forms of chaparral have been lost to agriculture and urbanization, chaparral still occurs throughout the mesas and slopes of the coastal lowlands. Chaparral is generally composed of hard-stemmed shrubs with leathery-leaves that avoid desiccation during the dry season. For example, cismontane chaparrals are characterized by large shrub species such as manzanita (*Arctostaphylos* spp.), chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus dumosa* or *Q. berberidifolia*), mountain mahogany (*Cercocarpus betuloides*), and wild lilac (*Ceanothus* spp.). Other types of chaparral included in this classification are southern mixed chaparral, northern mixed chaparral, chamise chaparral, red shank chaparral, montane chaparral, scrub oak chaparral, and maritime chaparral. A total of approximately 784,500 acres of chaparral occurs in the County.

Chaparral is home to a wide variety of birds. The spotted towhee (*Pipilo maculates*), wrentit (*Timaliidae spp.*), Bell's sage sparrow (*Amphispiza belli*), and California thrasher (*Toxostoma redivivum*) are representative birds of the chaparral community. A number of reptiles also inhabit this community, including the western whiptail (*Cnemidophorus tigris)*, granite spiny lizard (*Sceloporus orcutti*), San Diego horned lizard (*Phrynosoma coronatum*), and Pacific rattlesnake (*Crotalus oreganus helleri)*. In rocky, boulder-strewn terrain on the eastern side of the mountains, the barefoot gecko (*Coleonyx switaki*) and chuckwalla (*Sauromalus ater*) live in chaparral. Mammals include a number of species of bats, deer mice (*Peromyscus maniculatus*), pocket mice (*Chaetodipus fallax*), the desert cottontail rabbit (*Sylvilagus audubonii*), coyote (*Canis latrans*), bobcat (*Lynx rufus* spp.), mule deer (*Odocoileus hemionus*), and mountain lion (*Puma concolor* spp.).

## Coastal Sage Scrub

Coastal sage scrub consists predominantly of low growing, aromatic, and generally soft-leaved shrubs. The predominant type of coastal sage scrub within the County is Diegan coastal sage scrub. The representative species in this habitat type are California sage (*Artemisia californica*), flat-topped buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), saw-tooth goldenbush (*Hazardia squarrosa*), laurel sumac (*Malosma laurina*), bladderpod (*Isomeria arborea*), and California encelia (*Encelia californica*). A total of approximately 180,500 acres of coastal sage scrub occurs in the County.

At least 7,700 acres of the coastal sage scrub described above may be categorized as other types of scrubs based on field surveys. Riversidean sage scrub has similar species as Diegan coastal sage scrub, but occurs more inland in the northern part of the County and on much drier sites. Maritime succulent scrub occurs in the Otay region of the County and is a mix of cacti (mostly *Opuntia* spp.), several of the shrub species listed above, San Diego bursage (*Ambrosia chenopodiifolia*), and cliff spurge (*Euphorbia misera*). It should be noted that desert scrubs are not included in the coastal sage scrub category but are described separately below.

The California gnatcatcher (*Polioptila californica californica*), California towhee (*Pipilo crissalis eremophilus*), coastal cactus wren (*Campylorhynchus brunneicapillus*), rufous-crowned sparrow (*Aimophila ruficeps canescens*), and California thrasher are representative birds of the coastal sage scrub communities. The orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego horned lizard, banded gecko (*Coleonyx variegatus abbotti)*, black-tailed jackrabbit (*Lepus californicus bennettii*), desert cottontail, and deer mouse also use coastal sage scrub habitats, and packrats (*Neotoma* spp.) often form middens (wooden nests). Coyotes are common predators in this community and mule deer are occasionally seen. Several species of large scarab beetles (*Pleocoma* spp.), referred to as rain beetles, appear with the first soaking rain during late fall in coastal sage scrub and chaparral of the foothill and canyon regions of the unincorporated County and adjacent Baja, California.

## Coniferous Forests

Coniferous forests generally occur above an elevation of 3,500 feet and extend across the major mountain ranges of the Palomar, Volcan, Hotsprings, Cuyamaca, and Laguna. Conifers generally grow in areas that receive more than 20 inches of precipitation each year, including some snow. Coniferous forests are identified by the presence of one or a number of species of pines including Coulter (*Pinus coulteri*), Jeffrey (*P. jeffreyi*), Pacific ponderosa (*P. ponderosa*), and sugar (*P. lambertiana*). The red-barked incense cedar (*Calocedrus decurrens*) and the Christmas tree-like white fir (*Abies concolor*), commonly mixed with the deciduous California black oak (*Quercus kelloggii*), canyon live oak (*Q. chrysolepis*), and coast live oak (*Q. agrifolia*), also characterize coniferous forests in the County. This habitat is very important for wildlife. Common birds that inhabit coniferous forests include Stellar's jay (*Cyanocitta stelleri*), American robin (*Turdus migratorius*), western bluebird (*Sialia mexicana)*, black-headed grosbeak (*Pheucticus melanocephalus*), mountain chickadee (*Poecile gambeli)*, plain titmouse (*Baeolophus* spp.), and a variety of flycatchers. It is also important for mammals, including southern mule deer, bobcat, bat, and rodent species. Reptiles in coniferous forest include ring-necked snake (*Diadophis punctatus)*, mountain swift lizards, and mountain king snake (*Lampropeltis zonata*). The brightly colored large-blotched salamander (*Ensatina klauberi)* also occurs within this habitat. A total of approximately 73,800 acres of coniferous forest occurs in the County.

## Desert Chaparral

Desert chaparral consists of semi-desert chaparral and upper Sonoran ceanothus chaparral. The semi-desert chaparral is a transition area between desert and chaparral and occurs in areas such as Jacumba in the southeastern portion of the County. Upper Sonoran ceanothus chaparral occurs in the Sonoran desert, which is partially within San Diego County, just east of Borrego Springs, and is dominated by shrubs and trees (*Ceanothus* spp.). Semi-desert chaparral is composed of several typical chaparral species, including chamise, but also a number of shrub species that are well-adapted to the harsh desert climate with very hot, dry summers, occasional late summer rainfall, and cool to cold winters with relatively low rainfall. Shrubs include desert apricot (*Prunus fremontii*), cupleaf white lilac (*Ceanothus greggii* var. *perplexans*), and turpentine-broom (*Thamnosa montana*). A total of approximately 88,000 acres of desert chaparral occurs in the County.

## Desert Dunes

Small areas of active, stabilized, and partly stabilized desert dunes occur in the Borrego Valley in the Desert Subregion. Desert dunes include active desert dunes, stabilized and partially stabilized desert sand fields, and stabilized alkaline dunes. Active desert dunes are barren expanses of actively moving sand whose size and shape are determined by abiotic site factors rather than stabilizing vegetation. Stabilized and partially stabilized desert sand fields are desert sand accumulations that are not obviously worked into dune landforms. Vegetation varies from scant cover of widely scattered shrubs and herbs to nearly closed shrub canopies. Stabilized alkaline dunes are dunes in the desert which are stabilized or partially stabilized by evergreen and/or deciduous shrubs, scattered low annuals, and perennial grasses. Desert dunes support a series of unique plants and are found predominantly east of Borrego Springs. Plants that grow on desert dune habitats are adapted to conditions of shifting sand. They have long root systems to tap into the moisture from seasonal rainfall that lies deep within the dunes. The flat-tailed horned lizard (*Phrynosoma mcallii*) is one sensitive species that occurs within the sand dune habitats, as well as several species of milk vetch (*Astragalus* spp.) plants. A total of approximately 889 acres of desert dunes occurs in the eastern portion of the County.

## Desert Scrub

Desert scrub is one of the most widespread vegetation communities east of the mountains. It is generally dominated by the creosote bush (*Larrea tridentata*) and may often be categorized as Sonoran creosote bush scrub or Mojave creosote bush scrub. Other components of this community include the desert agave (*Agave deserti*), ocotillo (*Fouqueria splendens*), burro bush (*Ambrosia dumosa*), and a variety of cacti including the teddy-bear cholla (*Opuntia bigelovii*). Annual wildflowers in this habitat can carpet the ground during the spring after winter rainfall, and specific wildflower species bloom following the summer rainy period. Cacti are also noteworthy flowering plants within this community. About 440,800 acres of desert scrub (including creosote bush scrub) occurs in the County.

Diverse wildlife species inhabit desert scrub communities including the kit fox (*Vulpes macrotis)*, coyote, several species of ground squirrel (*Spermophilus* spp.), kangaroo rat (*Dipodomys* spp.), and pocket mouse (*Perognathus* spp.) species. The desert scrub community is also home to a variety of reptiles including the sidewinder (*Crotalus cerastes)*, zebra-tailed lizard (*Callisaurus draconoides* spp.), horned lizards (*Phrynosoma* spp.), and desert iguana (*Dipsosaurus*

*dorsalis)*. Tarantulas (*Aphonopelma* spp.), moths (*Sphingidae* spp.), locusts (*Caelifera* spp.), harvester ants (*Pogonomyrmex barbatus* spp.), and beetles (*Trigonoscuta* spp.) are some of the invertebrate species that can be found in the desert scrub.

**Dry Wash Woodlands**

The deserts of the unincorporated County include an interlaced network of small washes and drainage courses. These drainage courses support specialized vegetation that can capitalize on underground water which is close to the surface. Dry wash woodland is low-growing, loosely formed woodland with a number of distinctive plants. Dominant species and indicators of this habitat include desert-lavender (*Hyptis emoryi*), desert ironwood (*Olneya tesota*), catclaw (*Acacia greggii*), mesquite (*Prosopis* spp.), smoke tree (*Psorothamnus spinosa*), and desert willow (*Chilopsis linearis* ssp. *arcuata*). Dry wash woodlands total approximately 33,800 acres within the County.

Within the desert environment, the dry wash woodland habitat is where most of the bird life nests. Common bird species in this woodland include the verdin (*Auriparus flaviceps)*, black-throated sparrow (*Amphispiza bilineata)*, and phainopepla (*Phainopepla nitens)*. In areas where mesquite is extensive, Gambel's quail (*Callipepla gambelii)* are also found. Dry wash channels and flow courses fill with water during a heavy rainfall event usually associated with summer thunderstorms. This water flows rapidly in flash floods that cause erosion in these streams and flow channels. Strong flash floods would have the potential to uproot vegetation and scour the bottom of the stream channels. However, as a result of these scouring events, there would be new growth of shrubs and cactus seedlings. A number of species are specifically adapted to the conditions following storm scouring and will not germinate unless the seed coat has been abraded by transport in water through a slurry of sand and gravel.

**Grasslands**

Grasslands in the unincorporated County can be divided into two types: one that is composed mostly of native perennial grasses and herbs and one of non-native annual grass species that originated in the Mediterranean region. Due to urbanization and agricultural activities, non-native annual grasslands have predominantly replaced native grasslands and shrublands, including coastal sage scrub and chaparral. However, as development progresses, both types are becoming limited.

Native (perennial) grassland plants include several species of bunch grasses (*Nassella* spp.), blue-eyed grass (*Sisyrinchium bellum*), checker-bloom (*Sidalcea malvaeflora* spp. *sparsifolia*), wild hyacinth (*Dichelostemma pulchra*), and golden stars (*Bloomeria crocea* and *Muilla clevelandii*).

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Characteristic non-native grassland species include foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), wild oats (*Avena* spp.), fescues (*Vulpia* spp.), red-stem filaree (*Erodium cicutarium*), mustards (*Brassica* spp.), lupines (*Lupinus* spp.) and goldfields (*Lasthenia* spp.), among others.

Both native and non-native grasslands are important for a variety of wildlife including burrowing owl (*Athene cunicularia*), grasshopper sparrows (*Ammodramus savannarum)*, horned larks (*Eremophila alpestris)*, meadowlarks (*Sturnella* spp.), and small mammals that include the

endangered Stephens' kangaroo rat (*Dipodomys stephensi)*. Grasslands are especially important as habitat for reptiles and small mammals and as foraging habitat for raptors, which feed on small mammals. Grasslands account for approximately 124,000 acres of area within the County.

## Marshes

Marshes are very important for wildlife, and have been extensively reduced by channelization, dredging, and development. Most of the marshes in the unincorporated County are freshwater, with alkali marsh in areas where the soil is more alkaline, and saltmarsh directly along the coast. Freshwater marshes are found along rivers and their tributaries, around the edges of water bodies, and also near natural springs and ponded areas within major stream channels. Rushes (*Juncus* spp.), bulrushes (*Scirpus* spp.) and sedges (*Carex* spp. and *Scirpus* spp.) are common, and cattails (*Typha* spp.) are often found in the shallower water near the margins of the freshwater marsh. Arroyo willow (*Salix lasiolepis*), black willow (*S. gooddingii*) and red willow (*S. lasiandra*) are also often found in freshwater marshes. Open water stands in depressions or natural springs, and duckweeds (Family: *Limnaceae*) often form floating mats. Plant species that typify alkali marsh are yerba mansa (*Anemopsis californica*), alkali heath (*Frankenia salina*), and pickleweed (*Salicornia* spp.). Mulefat is found around the margins of freshwater or alkali marsh.

Freshwater marshes are home to a number of bird species including the common yellowthroat (*Geothlypis trichas)*, red-winged (*Agelaius phoeniceus)* and tricolor blackbirds (*Agelaius tricolor)*, and several species of egrets (*Egretta* spp.) and rails (*Gruiformes* spp.). Many migratory shorebirds also use freshwater and alkali marshes. Northern harriers hunt over marshes and grasslands and also nest within them. Freshwater marshes in their natural state have also served as habitat for native frog species; however, the bullfrogs introduced from eastern North America have severely reduced the native amphibian populations in southern California because they are voracious predators and can competitively exclude the smaller natives. A total of approximately 2,900 acres of marshes occur within the County.

## Meadows and Seeps

This classification includes montane meadows, alkali meadows and seeps, freshwater seeps, and vernal pools. Naturally occurring meadows exist primarily in the mountains and foothills where they form in areas of fine silty soils with groundwater close to the surface. Foothill valleys, such as Campo Valley, McCain Valley, and the area surrounding Lake Henshaw, support extensive meadows. Laguna Meadow in the Laguna Mountains and the area surrounding Cuyamaca Lake in the Cuyamaca Mountains are examples of montane meadows. Montane meadows are dominated by bunchgrasses (*Agropyron* spp.), sedges (*Carex* spp.), and spike-sedges (*Eleocharis* spp.). During spring, they are somewhat boggy and moist, and they remain green long after the herbaceous vegetation of their surroundings has dried. Many of the plants and animals of the deserts rely on water from mountain runoff, and from springs, seeps, meadows, marshes, and other wet areas scattered on the desert floor and the desert slopes of the mountains. Dense growths of vegetation generally surround these wet areas and the temperature is usually cooler than the surrounding arid lands, thus providing wildlife some respite from the dry desert summer heat.

Vernal pools are often found in grasslands and meadows; they sit above clay or hardpan subsoils. Vernal pools fill during winter and spring rains, and dry during the early summer,

which has caused unique assemblages of plant and animal life to have evolved with this wetting and drying regime. The plants and animals have adapted in a variety of ways. The plants germinate when the pools are full, and set seed as the pools dry. Fairy shrimp (*Branchinecta* spp.) hatch from cysts hardened to protect the animal during the dry season, and complete their life cycles within a couple of weeks. Other pond animals, such as tadpoles and very small crustaceans, hatch when the pools are full. In their resting states (cysts, eggs, and seeds), plant and animal species can remain dormant in the soils for years until conditions are right to support the completion of their life cycles. A total of approximately 13,000 acres of meadows and seeps, including vernal pools, occurs in the County.

## Oak Forest

Oak forest represents a community that is found near or blending in with other forest vegetation. Meant to describe a true forest of substantial trees growing in a manner that produces a closed canopy of tree cover, oak forest is characterized by coast live oak (*Quercus agrifolia*), California black oak (*Q. kelloggii*), and canyon live oak. In many locations, these species grow into massive trees that are hundreds of years old. This habitat is often found adjacent to and intermixes with coniferous forest and oak woodland vegetation. The primary locations for oak forest are the northern end of Palomar Mountain, the slopes and canyons on Hot Springs Mountain, and parts of the Cuyamaca and Laguna Mountain ranges. Animal species found in oak forest include acorn woodpeckers (*Melanerpes formicivorus)*, western bluebirds, plain titmouse, and mountain chickadees. Western gray squirrels (*Sciurus griseus*) and Merriam's chipmunks (*Tamias merriami)* are also known to inhabit these forests, as well as southern mule deer, bobcats, coyotes, and mountain lions. Oak forest totals approximately 11,500 acres within the County.

## Other Woodlands

Other woodlands generally include black oak, coast live oak, and Engelmann oak woodlands, as well as mixed oak woodlands and undifferentiated open and dense woodlands. Oak woodlands occur in a variety of locations where soil conditions are moister than the soils hosting coastal sage scrub and chaparral vegetation. In the lowlands, they are mostly confined to stream and canyon bottoms, but in the foothills and mountains they occur in areas with good soil, especially on north and east facing slopes. Woodlands have an open canopy, whereas in forests the trees are dense enough to form a closed canopy. The coast live oak woodlands grow on the coast and in the foothills of the County and the Engelmann oak (*Quercus engelmannii*) grows only in the foothills. Canyon live oak occurs as woodlands in canyons and on shady slopes in the mountains up to 7,800 feet and interior live oak (*Q. wislizenii*) up to 6,000 feet. Oak woodlands often have an under-story of poison oak (*Toxicodendron diversilobum*), gooseberry (*Ribes* spp.), and various herbs. Black oak woodland dominated by California black oak occurs in the foothills and mountains of the County, including Cuyamaca and Mesa Grande, at elevations up to about 7,200 feet where rainfall can reach 30-50 inches.

Oak woodlands serve as habitat for bird species including plain titmouse, mountain chickadee, Nuttall's woodpecker (*Picoides nuttallii)*, northern flicker (*Colaptes auratus)*, scrub jay (*Aphelocoma* spp.), and a variety of flycatchers and owls. Since oak woodlands often occur as linear features along drainages, the mammals that inhabit them are often the same ones that occur in the surrounding chaparral habitat, including coyote, bobcat, and the occasional mountain lion. In addition, raccoons (*Procyon lotor*), striped (*Mephitis mephitis)* and spotted skunks (Spilogale spp.), opossums (*Didelphis* spp.), and several species of bats make their

homes within this plant community. Shrews and long-tailed weasels (*Mustela frenata)* tend to prefer oak woodland areas that provide more moisture. Other woodlands total approximately 111,100 acres within the County.

**Pinyon Juniper Woodland**

Pinyon juniper woodland, characterized by California juniper (*Juniperus californica*), is an isolated community found in remote desert mountain ranges, including areas on the leeward side of Mount Laguna and the mountains east of Jacumba. California juniper is often accompanied by four- or single-leaf pinyon pine (*Pinus quadrifolia and P. monophylla,* respectively). Extensive pinyon pine forests also exist north of San Diego County in the San Jacinto Mountain range and to the south in the Sierra Juarez of Baja, California. Southern mule deer and mountain lions inhabit the remote juniper woodlands of the unincorporated County. Pinyon juniper woodland totals approximately 54,100 acres within the County.

**Playas/Badlands/Mudhill Forbs**

Desert Playa consists of dry lake beds that contain water only following unusually heavy rainfall events. Flood periods occur in winter or after unusually heavy summer thunderstorms. There are several distinctive naturally occurring playas in the unincorporated County, including the Borrego Sink and Clark Dry Lake. These areas are nearly devoid of vegetation over much of their surface, though a few specially adapted plants such as hoffmanseggia (*Caesalpinia virgata*) do grow in the bottoms or edges of dry lakebeds.

The badlands, generally located in the Desert Subregion are the result of sedimentary rocks that have been tilted up by geologic forces and eroded into the uniquely sculpted badlands. Like the Desert Playa, these areas contain sparse vegetation consisting mostly of ocotillo (*Fouquieria splendens)* and other blooming desert vegetation.

Mudhill forbs habitat are the result of exposure of soils that exist as clay or have high content of minerals, such as gypsum. The soils are sticky when wet and very unstable and crumbly when dry. This unstable character and the lack of oxygen available to roots when the soils are wet eliminate the potential for many shrubs to grow there. However, in some locations, the clay soils support small native, shallow rooted, annual plants that can grow on these soils following normal or above normal winter rainfall. A total of approximately 47,700 acres of playas/badlands and mudhill forbs occur within the County.

**Riparian Vegetation: Riparian Forest, Riparian Scrub, and Riparian Woodland**

Riparian vegetation communities include southern coast live oak riparian forest, southern cottonwood-willow riparian forest, southern riparian scrub, southern sycamore-alder riparian woodland, southern willow scrub, desert dry wash woodland, Colorado Desert wash scrub, mule fat scrub, desert sink scrub, Sonoran wash scrub, white alder riparian forest, tamarisk scrub, and southern arroyo willow riparian forest. Riparian vegetation occurs along rivers, streams, and other drainages in the unincorporated County. Generally willows (*Salix* spp.), cottonwoods (*Populus* spp.), sycamore (*Platanus racemosa*), or mule fat (*Baccharis salicifolia*) provide the structure of the riparian habitats in the unincorporated County. Oaks (*Quercus agrifolia* and *Q. engelmannii*) are also present in some riparian habitats, such as Southern Coast Live Oak Riparian Forest.

Riparian vegetation communities are one of the most sensitive habitats in California and one of the most important vegetation communities for wildlife. The federally endangered least Bell's vireo (*Vireo bellii pusillus)* and southern willow flycatcher (*Empidonax traillii extimus)*, as well as the more common yellow-breasted chat (*Icteria virens)* and common yellowthroat, are completely dependent on riparian habitats. Other bird species, such as the American goldfinch (*Carduelis tristis)*, yellow warbler (*Dendroica petechia)*, and long-eared owl (*Asio otus)*, also frequent riparian scrubs and woodlands. Small carnivores that inhabit riparian vegetation include spotted and striped skunks, raccoons, and bobcats. Riparian vegetation and associated stream courses are critical for a variety of amphibians, including the Pacific tree frog (*Pseudacris regilla)* and the federally endangered arroyo southwestern toad (*Bufo californicus)* that inhabit the water and damp banks of water courses. Silvery legless lizards live in the leaf litter. During the dry summer months, species from nearby arid terrestrial habitats use the riparian areas for respite from the heat. Riparian vegetation in the desert region includes unusually large mesquite bosque forests in Borrego Valley near the Borrego Sink. Mesquite bosques are dense woodlands of honey mesquite and mesquite trees (*Prosopis glandulosa* var. *torreyana* and *P. pubescens*).

At one time, all of the major riverbeds in the unincorporated County supported extensive areas of riparian forests and woodlands. Good examples of riparian vegetation still exist along the major rivers of the unincorporated County, including the Santa Margarita, San Luis Rey, San Dieguito, San Diego, Sweetwater, and Tijuana Rivers. Riparian vegetation exists along stream and valley bottoms as well as deep canyons in areas where the water table is not far below the soil surface. Riparian vegetation totals approximately 49,300 acres within the County including 33,300 acres of riparian forest, 11,800 acres of riparian scrub, and 4,200 acres of riparian woodland.

**Southern Foredunes, Beach, Saltpan, and Mudflats**

Southern foredunes, beach, saltpan, and mudflat communities are coastal-dependent communities that occur within a short distance from the water's edge. Originally, there were nearly 2,000 acres of these habitats present in the unincorporated County. However, because of beach development, these communities have been essentially eliminated. Small areas that would have the potential to support components of the dune communities exist at the southern end of the Silver Strand on military lands in the City of Coronado, the slopes in Torrey Pines State Park in the City of San Diego that are adjacent to the lower salt marsh, and the mouth of the Santa Margarita River, in Marine Corps Base Camp Pendleton. However, none of these areas are under the jurisdiction of the County.

Southern foredune habitat is used by the western snowy plover (*Charadrius alexandrinus nivosus)*, a species listed as federally threatened, and California least tern (*Sternula antillarum browni)*, a species listed as federally endangered, as nesting habitat. In addition to the sensitive species of birds, these habitats are home to rare species of beetles. It is also important for certain plant species that are considered to be rare and endangered. However, very little of the foredune habitat still remains in an undisturbed state.

Dominant plant species where the dune habitat has not been extensively disturbed include sea rocket (*Cakile* spp.), saltgrass (*Distichlis spicata)*, ambrosia (*Ambrosia* spp.) and sand verbena (*Abronia* spp.). Many of these species have succulent leaves as a result of adaptations to a salty environment.

Saltpan and mudflat habitats are also very important for shorebirds that use them as feeding areas. The saltpan and mudflat habitats are used by a wide variety of shorebirds and are an important part of the reason that coastal San Diego County contains such a diversity of bird species. A total of approximately 460 acres of these communities occur with the County.

**Urban, Disturbed Habitat, Agriculture, Eucalyptus**

Urban land consists of all residential, commercial, and industrial developments, and land covered by non-native vegetation (except grasslands). Most urban types of development provide little habitat for native species, but do support several non-native species, such as mourning doves (*Zenaida macroura*), European starlings (*Sturnus vulgaris*), house sparrows (*Passer domesticus*), mice, and rats. Native species that exemplify adaptability to urban development include the northern mockingbird (*Mimus polyglottos)*, mourning dove, house finch (*Carpodacus mexicanus)*, black phoebe (*Sayornis nigricans)*, opossum, and striped skunk. During the past decade, American crows have moved into urban areas of the unincorporated County. Migrating songbirds use large stands of ornamental plantings during spring or fall, and some species such as white-crowned sparrow (*Zonotrichia leucophrys)* and cedar waxwing (*Bombycilla cedrorum),* spend the winter in residential neighborhoods of the coastal lowlands.

Disturbed land includes areas in which there is sparse vegetative cover and where there is evidence of soil surface disturbance and compaction from previous human activity and/or the presence of building foundations and debris. Vegetation on disturbed land (if present) has a high predominance of non-native and/or weedy species that are indicators of surface disturbance and soil compaction, such as Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow-thistle (S*onchus oleraceus*).

Agriculture refers to lands subject to routine and ongoing commercial operations associated with orchards and vineyards, intensively developed agriculture, such as dairies, nurseries, and chicken ranches, and extensive agriculture such as field and pastures and row crops. Well-managed, modern agricultural areas used for commercial row crops, orchards, and vineyards can be devoid of wildlife. However, fields and pastures can provide habitat for native small mammals and foraging habitat for raptors, especially northern harriers (*Circus cyaneus)* and red-tailed hawks (*Buteo jamaicensis)*. White-faced ibises (*Plegadis chihi)*, egrets, crows (*Corvus* spp.), and killdeer (*Charadrius vociferus)* often use fallow or active fields.

Eucalyptus trees are not native and occur within the County because they were planted. Eucalyptus trees produce a large amount of leaf and bark litter. The chemical and physical characteristics of this litter limit the ability of other species to grow in the understory, and floristic diversity decreases. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its range.

Urban lands, disturbed habitat, agriculture, and eucalyptus trees account for approximately 257,800 acres of land within the County.

**Water**

Areas classified as water in the unincorporated County are mostly dams and reservoirs. Over the years, small ponds have been created in the backcountry for agriculture and recreation. Many of the drinking water reservoirs in the County have become habitat for bird species. The

open water of the reservoirs provide habitat for diving and dabbling ducks, egrets, herons, grebes, and cormorants, and foraging habitat for fish-eating raptors, such as ospreys (*Pandion haliaetus*) and bald eagles (*Haliaeetus leucocephalus*). Bald eagles winter at Lake Henshaw and Morena Reservoir. Western grebes (*Aechmorphorus occidentalis*) build their nests in these areas and around other inland reservoirs. Western grebes have nested at Sweetwater Reservoir since 1956 and are now also nesting at Lower Otay Reservoir (Unitt 2004). Water accounts for approximately 11,600 acres of land within the County.

### *2.4.1.3 Sensitive Resources*

Sensitive biological resources are defined as the following: 1) vegetation communities that are unique, of relatively limited distribution, or of particular value to wildlife; and 2) species that have been given special recognition by federal or State agencies, or are included in regional conservation plans due to limited, declining, or threatened populations.

**Sensitivity Designations**

Federal listing of endangered and threatened wildlife and plants is administered by the U.S. Fish and Wildlife Service (USFWS) for terrestrial and freshwater species and by the National Marine Fisheries Service (NMFS) for marine and anadromous species. The USFWS and NMFS also recognize species of special concern that are candidates for listing. Before a plant or animal species can receive protection under the federal Endangered Species Act (ESA), it must first be placed on the federal list. The program follows a strict legal process to determine whether to list a species. An "endangered" species is defined as one that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of plants and animals native to the U.S. that are species of special concern for possible addition to the federal list but that are not currently regulated.

The California Department of Fish and Game (CDFG) implements the California Endangered Species Act (CESA), which is a program that is similar in structure to, but different in detail from, the USFWS program implementing the federal ESA. The CDFG maintains a list of designated endangered, threatened, and rare plant and animal species. Listed species are either designated under the Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFG affords interim protection to candidate species while they are being reviewed by the Fish and Game Commission. The CDFG also maintains a list of "Species of Special Concern," most of which are species whose breeding populations in California faces extirpation. Although these species have no legal status, the CDFG recommends consideration of them during analysis of the impacts of proposed projects to protect declining populations and avoid the need to list them as endangered in the future. The CESA also protects plant species, which the federal ESA does not.

Under the provisions of Section 15380(d) of the CEQA Guidelines, the lead agency, in making a determination of significance, must treat rare non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFG considers species on Lists 1A, 1B, or 2 of the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (Skinner 1994) as qualifying for consideration under this CEQA provision. Species on the California Native Plant Society (CNPS) List 3 or 4 may, but generally do not, qualify for protection under this provision. Species

on CNPS List 1A are "presumed extinct in California." Species on List 1B are "rare or endangered in California and elsewhere." Species on List 2 are "rare or endangered in California and are more common elsewhere." Species on Lists 3 and 4 are those which require more information to determine status and plants of limited distribution, respectively.

The primary information source on the distribution of special-status species in California is the California Natural Diversity Database (CNDDB) inventory, which is maintained by the Wildlife and Habitat Data Analysis Branch of the CDFG. The CNDDB inventory provides the most comprehensive Statewide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data are obtained from a variety of scientific, academic, and professional organizations; private consulting firms; and knowledgeable individuals; and is entered into the inventory as expeditiously as possible. The occurrence of a species of concern in a particular region is an indication that an additional population would have the potential to occur at another location if habitat conditions are suitable. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from the area in question, only that no data has been entered into the CNDDB inventory. Appendix C of this EIR provides additional detailed biological resource data in tabular form. Tables C-1 and C-2 in Appendix C identify the plants and wildlife species listed in the CNDDB for the unincorporated County.

**Special Status Plants**

Table C-1 in Appendix C lists the 184 special-status plant species that occur, or are thought to occur, in the County. Of these species, seven are non-vascular (bryophytes and lichens), three are gynosperms, one is a fern, 11 are monocots, and 162 are dicots.

Fourteen of the County's special-status plant species are federally endangered, six are federally threatened, and two are candidates for federal listing. Twenty-one of the special-status species are recognized under CESA as State endangered, two are listed as State threatened under CESA, and six are listed under the California Native Plant Protection Act as rare. Most of the special-status plant species in the County are CNPS List 1B or 2 species. Four are on List 3 and two are on List 4.

**Special Status Wildlife**

Table C-2 in Appendix C lists the 111 special-status wildlife species that occur, or are thought to occur, in the County. Of these species, six are amphibians, 33 are birds, six are fish, 29 are mammals, 16 are reptiles, and 21 are invertebrates, including crustaceans, insects, and mollusks.

Nineteen of the County's special-status wildlife species are federally endangered, three are federally threatened, one is a candidate for federal listing, and one has been delisted. Eleven of the special-status species are recognized under CESA as State-endangered, five are listed as State-threatened under CESA, and 51 are listed as California Species of Concern.

**Critical Habitat**

There are 21 federally listed plants and 22 federally listed endangered or threatened animals whose ranges include the unincorporated County. Of these species, two plants and eight animals have federally designated critical habitat within the unincorporated lands of the County.

The amount of designated critical habitat in the unincorporated County is approximately 557,000 acres. Approximately 70 percent of this habitat is located within National Forest or State Parks. These species include thread-leaved brodiaea, Otay tarplant, Quino checkerspot butterfly, San Diego fairy shrimp, southwestern willow flycatcher, western snowy plover, bighorn sheep, Laguna Mountain skipper, southern steelhead trout, arroyo southwestern toad, and least Bell's vireo.

### *2.4.1.4 Wildlife Movement Corridors and Habitat Linkages*

Wildlife corridors are defined by County of San Diego Code of Regulatory Ordinances Sections 86.501 through 86.509, the Biological Mitigation Ordinance (BMO) (adopted March 1998) as specific routes that are used for movement and migration of species. Wildlife corridors contribute to population viability in several ways: 1) they ensure continual exchange of genes between populations, which helps maintain genetic diversity; 2) they provide access to adjacent habitat areas representing additional territory for foraging and mating; 3) they allow for a greater carrying capacity; and 4) they provide routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (also known as the rescue effect). Riparian corridors provide the primary movement corridors for wildlife in the unincorporated County and may provide cover as well as food and water for wide ranging animal species moving through otherwise unsuitable habitats.

Habitat linkages serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Habitat linkages would have the potential to serve both as habitat and as avenues of gene flow for small animals, such as reptiles, amphibians, and rodents. Habitat linkages can be continuous patches of habitat or nearby habitat "islands" that function as stepping stones for dispersal and movement (especially for birds and flying insects). A regional corridor/linkage is defined by the BMO as land which contains topography which serves to allow for the movement of all sizes of wildlife and is used by wildlife, including large animals on a regional scale, and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife. Sensitive as well as common wildlife species' populations can be adversely affected by disruption of movement corridors, linkages, or nursery sites.

A system of corridors and linkages has been designated in the southwest portion of unincorporated County through the MSCP South County Subarea Plan. The MSCP identifies core habitat areas and linkages between them. Corridors and linkages are also identified in the draft North County Plan; however, this MSCP Plan has not been adopted. Figure 2.4-2 identifies the adopted South County Subarea Plan corridors and linkages and those proposed in the North County Plan.

## 2.4.2 Regulatory Framework

### *2.4.2.1 Federal*

**Federal Endangered Species Act (ESA)**

The U.S. Congress passed the federal ESA in 1973 to provide a means for conserving the ecosystems that endangered and threatened species require in order to prevent species extinctions. The federal ESA has four major components: 1) Section 4, which provides for

listing species and designating critical habitat; 2) Section 7, which requires federal agencies, in consultation with the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; 3) Section 9, which prohibits against "taking" listed species; and 4) Section 10, which provides for permitting incidental take of listed species.

Under the federal ESA, the term "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." "Critical habitat" is defined as "the specific areas within the geographic area occupied by a species on which are found those physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species." Critical habitat has been designated for numerous species in the unincorporated County.

**Migratory Bird Treaty Act (MBTA)**

The MBTA of 1918 (16 U.S. Code 703-711) implements an international treaty for the conservation and management of bird species that may migrate through more than one country. Enforced in the U.S. by the USFWS, the MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a "take" and is potentially punishable by fines and/or imprisonment. In 1972, the MBTA was amended to include protection for migratory birds of prey (raptors). Generally, applicants who obtain an ESA Section 10(a) permit simultaneously receive a three-year MBTA permit for ESA-listed migratory birds.

**Bald and Golden Eagle Protection Act**

Enacted in 1940, this Act prohibits the take, transport, sale, barter, trade, import, export, and possession of bald eagles, making it illegal for anyone to collect bald eagles and eagle parts, nests, or eggs without authorization from the Secretary of the Interior. The Act was amended in 1962 to extend the prohibitions to the golden eagle.

**Federal Water Pollution Control Act (Clean Water Act) (1972)**

The Water Pollution Control Act, passed by Congress in 1948, authorized the Surgeon General of the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters. The Act was later amended to become the Federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (CWA). The CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the U.S. and gave the EPA the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The EPA has delegated responsibility for implementation of portions of the CWA in California to the State Water Resources Control Board (SWRCB) and the RWQCB, including water quality control planning and control programs.

The CWA also prohibits the discharge of any pollutants from a point source into navigable waters, except as allowed by permits issued under certain sections of the CWA. Specifically, Section 404 authorizes the U.S. Army Corps of Engineers (ACOE) to issue permits for and regulate the discharge of dredged or fill materials into wetlands or other "waters of the U.S." Under the CWA and its implementing regulations, "waters of the U.S." are broadly defined as rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands. Further, Section 401 allows states to certify or deny federal permits or licenses that might result in a discharge to State waters, including wetlands. Section 401 certifications are issued by the RWQCB for activities requiring a federal permit or license that may result in the discharge of pollutants into waters of the U.S.

### *2.4.2.2 State*

**California Fish and Game (CFG) Code**

The CFG Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the CESA (Sections 2050-2115) and Streambed Alteration Agreement regulations (Sections 1600-1616), which are both discussed in more detail below, as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFG Code also includes protection of birds (3500 *et seq.) and* the California Native Plant Protection Act (NPPA) of 1977 (Sections 1900-1913), which directed CDFG to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State."

**California Endangered Species Act (CESA)**

The CESA is similar in many ways to the federal ESA. CESA is administered by the CDFG. CESA provides a process for CDFG to list species as threatened or endangered in response to a citizen petition or by its own initiative (CFG Code Section 2070 et seq.). Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the Act. Section 2081 allows CDFG to authorize take prohibited under Section 2080 provided that: 1) the taking is incidental to an otherwise lawful activity; 2) the taking will be minimized and fully mitigated; 3) the applicant ensures adequate funding for minimization and mitigation; and 4) the authorization will not jeopardize the continued existence of the listed species. In addition, Section 2800 *et seq.* of the CFG Code addresses Natural Community Conservation Planning (NCCP).

**Lake and Streambed Alteration Program**

Section 1602 of the CFG Code requires any person, state, or local governmental agency to provide advance written notification to CDFG prior to initiating any activity that would: 1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or 2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The State definition of "lakes, rivers, and streams" includes all rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

**Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act provides for Statewide coordination of water quality regulations. The Act established the California SWRCB as the Statewide authority and nine separate RWQCBs to oversee smaller regional areas within the State. The Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and ground waters); and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The Basin Plan for the San Diego Region is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the Region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

**Natural Community Conservation Planning (NCCP) Act of 1991**

The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land uses. CDFG is the principal state agency implementing the NCCP Program. Section 2800 *et seq.* of the CFG Code addresses NCCPs and a 2835 permit is issued by CDFG for all NCCPs. The Act established a process to allow for comprehensive, regional multi-species planning in a manner that satisfies the requirements of the State and federal ESAs (through a companion regional Habitat Conservation Plan). The NCCP program has provided the framework for innovative efforts by the State, local governments, and private interests to plan for the protection of regional biodiversity and the ecosystems upon which it depend. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

### *2.4.2.3 Local*

**San Diego County Zoning Ordinance**

The County Zoning Ordinance is the primary regulatory document for land use in the County. Adopted October 18, 1978 and most recently amended in May 2007, the Zoning Ordinance acts as an implementation vehicle for elements of the General Plan. Land may have a zoning designation or special area regulation with certain restrictions pursuant to the Zoning Ordinance. For instance, San Diego County Zoning Ordinance Sections 2810 through 2818 are the S81 Ecological Resource Area Regulations. The few uses allowed on lands with this designation are subject to strict provisions and limitations. The Zoning Ordinance also applies other Special Area Regulations with specific restrictions and provisions, including Sections 5300 through 5307, Sensitive Resource Area Regulations (Designator G); Sections 5950 through 5957, Coastal Resource Protection Area Regulations (Designation R); and/or Sections 5850 through 5856, Vernal Pool Area Regulations (Designator V).

**Multiple Species Conservation Program (MSCP)**

The MSCP is a County conservation planning program designed to establish connected preserve systems that ensures the long-term survival of sensitive plant and animal species and protects the native vegetation found throughout the unincorporated County. Plans created under this program are both a federal Habitat Conservation Plan (HCP) and a State NCCP, as described above in Section 2.4.2.2. The MSCP addresses the potential impacts of urban growth, natural habitat loss, and species endangerment and creates plans to mitigate for the potential loss of sensitive species and their habitats.

The County has developed and adopted a plan for the unincorporated areas in the southern part of the County. This plan was created as part of a larger plan known as the regional MSCP Plan (August 1998). The MSCP Plan covers 582,243 acres over 12 jurisdictions. Each jurisdiction has its own Subarea Plan and each differs in how it implements the MSCP Plan. The Subarea Plan for the County's jurisdiction, adopted by the Board of Supervisors (BOS) on October 22, 1997, covers 252,132 acres in the southwestern portion of the unincorporated area, as shown in Figure 2.1-1. The documents used to implement the MSCP include the South County Subarea Plan (adopted October 1997), the BMO, the Final MSCP Plan (dated August 1998), and the Implementing Agreement between the County and Wildlife Agencies (signed March 1998).

The County is currently developing additional MSCP Plans for the North County and East County areas. A Draft North County Plan was released for public review on February 19, 2009. The public may submit comments and a second draft of the plan, along with its EIR/EIS, is expected to be released in early 2011. The draft Plan covers 63 plant and animal species in a 294,849-acre area in North County stretching from Camp Pendleton and the Riverside County line to the community of Ramona (County 2009).

Any habitat set aside for the protection of biological resources in accordance with the MSCP is considered sensitive. MSCP Plans divide habitats into tiers based on sensitivity. Tier I habitats are generally the most sensitive and usually support a high diversity of plant and animal species or occur in limited areas within the unincorporated area of the County. Tier II habitats contain a number of sensitive species, but are more likely to occur throughout the unincorporated area of the County or in remote areas where development is not anticipated. Tier III habitats contain natural habitats not included in the other two categories and Tier IV includes disturbed lands.

The MSCP aids in the preservation of sensitive plant and animal species, helping to eliminate the need for future listings of species as endangered under federal and State Endangered Species Acts and reduces the costly permit process for private landowners and public agencies. The overall goal of the MSCP is a large, connected and managed preserve system that addresses a number of species at the habitat level rather than species by species and area-by-area. This will create a more effective preserve system as well as better protect the rare, threatened, and endangered species.

**County of San Diego Code of Regulatory Ordinances Sections 86.501-86.509, Biological Mitigation Ordinance (BMO)**

The BMO provides the regulatory basis for implementing the MSCP South County Subarea Plan. The BMO outlines the sensitive resources of concern and sets forth the specific criteria and requirements that all private and public projects must follow. The MSCP South County Subarea Plan and BMO provide specific criteria for project design, impact allowances, and mitigation requirements. The BMO includes specific project design criteria that must be incorporated into each project, such as protecting wildlife movement corridors and avoiding resources considered to be significant. The BMO also limits the amount of impacts that can occur to certain sensitive, rare, or endangered species, and sets the minimum amount of mitigation that must be implemented.

**Implementing Agreement (IA)**

The IA is a tool to fulfill the obligations of the MSCP South County Subarea Plan. The IA was signed on March 17, 1998 between the USFWS, CDFG, and the County of San Diego. This 50-year cooperative agreement provides for the conservation of 85 plant and animal "covered species," establishes management conditions, and requires each of the parties to perform certain duties and responsibilities. It also provides for remedies and recourse should any of the parties fail to perform.

**County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)**

The RPO was adopted in 1989 and later amended in 1991 and 2007. The RPO restricts, to varying degrees, impacts to natural resources including environmentally sensitive lands such as wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and historical sites. Certain discretionary permit types are subject to the requirement to prepare Resource Protection Studies under the RPO. Such discretionary permits include TMs, TPMs, Revised TMs, Revised TPMs, Rezones, MUPs, MUP modifications, and Site Plans.

The RPO requires that wetlands and their adjacent wetland buffers be protected on sites where these permits are granted. It also sets forth certain allowable uses within these lands.

The RPO also requires that applicable discretionary projects protect sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and/or the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor.

**County of San Diego Code of Regulatory Ordinances Sections 67.801-67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO)**

The purpose of the WPO, adopted in 2002 and updated in 2008, is to protect water resources and to improve water quality. This ordinance: 1) prohibits polluted non-stormwater discharges to the stormwater conveyance system and receiving waters; 2) establishes requirements to prevent and reduce pollution to water resources; 3) establishes requirements for development project site design to reduce stormwater pollution and erosion; 4) establishes requirements for the management of stormwater flows from development projects to prevent erosion and to protect and enhance existing water-dependent habitats; 5) establishes standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites; 6) establishes notice procedures and standards for adjusting stormwater and non-stormwater management requirements; and 7) ensures that the County is compliant with applicable state and federal laws. The ordinance applies to all projects requiring certain discretionary or ministerial approval in the unincorporated County that are not already regulated under a valid facility-specific NPDES permit or facility-specific RWQCB Waste Discharge Requirements permit. The ordinance applies to, but is not limited to, projects that require a tentative map, grading permit, or building permit. Projects are required to submit plans demonstrating how the requirements of the WPO would be met in order for the project to be approved.

**County of San Diego Code of Regulatory Ordinances Sections 86.501-86.509, Habitat Loss Permit (HLP) Ordinance**

The HLP Ordinance was adopted in March 1994 in response to both the listing of the coastal California gnatcatcher as a federally threatened species and the adoption of the NCCP Act by the State of California. Pursuant to the Special 4(d) Rule under the ESA, the County is authorized to issue "take permits" for the coastal California gnatcatcher (in the form of HLPs) in lieu of Section 7 or Section 10(a) permits, which are typically required from the USFWS. Although issued by the County, the wildlife agencies (USFWS and CDFG) must concur with the issuance of an HLP for it to become valid as take authorization under the ESA. The HLP Ordinance states that projects must obtain an HLP prior to the issuance of a grading permit, clearing permit, or improvement plan if the project will directly or indirectly impact any coastal sage scrub habitat types. The HLP is required if coastal sage scrub or related habitat will be impacted, regardless of whether or not the site is currently occupied by coastal California gnatcatcher. HLPs are not required for projects within the boundaries of an adopted MSCP Plan since take authorization is conveyed to those projects through compliance with the MSCP Plan.

**San Diego County Board of Supervisors (BOS) Policy I-123, Conservation Agreement for the Multiple Species Conservation Program (MSCP) Plan**

This policy establishes the process for the County to acquire habitat for MSCP Preserve lands at minimal public cost while providing incentives for voluntary landowner participation in the program. The implementing mechanism is a conservation agreement through which a landowner would permanently set aside land which contributes to the County's MSCP Preserve in exchange for certain financial and permitting benefits. The property owner would receive Third Party Beneficiary Status, be included under the County's MSCP Plan and would have the potential to qualify for reductions in water availability stand-by charges provided by the Metropolitan Water District of Southern California or the San Diego County Water Authority.

## 2.4.3 Analysis of Project Impacts and Determination of Significance

### *2.4.3.1 Issue 1: Special Status Plant and Wildlife Species*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

**Impact Analysis**

Development of land uses consistent with the proposed General Plan Update, and construction of new infrastructure to support these land uses, have the potential to directly or indirectly impact habitats of candidate, sensitive, or special status species. Candidate species are species that are eligible for listing as a federal or State threatened or endangered species. Sensitive species are species that have been given special recognition by federal or State

agencies, or are included in regional plans due to limited, declining, or threatened populations. Special status species are designated as threatened or endangered by the CDFG or USFWS. As a result of impacts to species habitat, the General Plan Update would result in impacts to candidate, sensitive and special status species. A discussion of each vegetation community in the unincorporated County and the species supported by each is included in Section 2.4.1.2 above. For the purposes of this EIR, impacts to sensitive species habitats would represent a potentially significant impact to special status plant and wildlife species because these habitats are essential to support populations of the special status species.

**Direct Impacts**

Potential direct impacts of the General Plan Update would include removal of habitat for new development and infrastructure. New buildings and infrastructure in previously undeveloped areas would have the potential to result in the removal of habitats that support sensitive species. Redevelopment under the General Plan Update or new development in currently urbanized areas would result in fewer impacts to habitats because they are generally already disturbed and less able to support sensitive species in these areas. Some proposed land uses would result in greater biological impacts than others due to increased development densities. Figure 2.4-3 shows the proposed project's estimated impacts to vegetation communities according to land use designation, including the criteria used to estimate impacts. The estimated impacts are discussed in greater detail below. As shown in this figure, all areas proposed for village residential, commercial, industrial, office professional, village core mixed use, or public/semi-public facilities land uses are estimated to have 100 percent impact to habitat because these higher-density land uses would potentially require the removal of all existing vegetation during land development. Higher-density semi-rural residential areas are also estimated to result in 100 percent impact. Lower density semi-rural residential areas are estimated to result in 50-75 percent impact because these areas would have larger parcels which would result in the removal of some vegetation while also avoiding some areas of natural habitat. Rural lands, which would have the largest parcel sizes, are estimated to result in an impact of five acres for every dwelling unit. Areas designated as tribal lands, military installations, National Forests and State Parks, and conserved open space were considered to have no impact to sensitive habitats because either the County does not have jurisdiction over these areas or the General Plan Update does not propose impactful uses for these areas. Existing open space easements or MSCP preserves have also been excluded from the impact totals.

Table 2.4-1, Total Habitat Impacts by CPA and Subregion, provides the total acreage of habitat that would be impacted as a result of development accommodated by the General Plan Update. Table C-3, Impacts to Vegetation Communities by CPA and Subregion, located in Appendix C of this EIR, presents the estimated acreage of each habitat in each planning area that would be potentially impacted. As shown in these tables, the areas with the greatest total acreage impact are Desert Subregion (19,030 acres), Mountain Empire Subregion (15,606 acres), North Mountain Subregion (14,390 acres), Ramona CPA (15,245 acres), and Valley Center CPA (14,259 acres). Ramona CPA and Valley Center CPA are proposed for substantial growth under the General Plan Update; therefore, these areas would result in large acres of impacts to habitat from planned future development. Most areas in the Desert, Mountain Empire, and North Mountain Subregions are proposed for low density rural development; however, these Subregions are relatively undeveloped. Therefore, new development in these areas would be likely to impact natural habitat. Likewise, the more urbanized areas of the County are anticipated to have the least amount of impact under the General Plan Update because a large portion of the habitats in these areas have previously been removed or disturbed. The CPAs

with the smallest estimated habitat impacts include County Islands CPA (32 acres), Spring Valley CPA (756 acres), Sweetwater CPA (858 acres), and Valle de Oro CPA (1,199 acres).

Table 2.4-2 provides the total acreage of each habitat/vegetation community impacted. As shown in this table, a total of approximately 174,638 acres of habitat types would be impacted Countywide as a result of the proposed project. The most heavily impacted vegetation communities would be chaparral (55,058 acres), Diegan coastal sage scrub (31,186 acres), non-native grassland (14,005 acres), and Desert Scrub/Sonoran creosote bush scrub (10,775 acres). Therefore, the proposed project would have the potential to directly and indirectly impact habitat that supports sensitive plant and wildlife species. Section 2.4.1.2, Vegetation Communities, and Tables C-1 and C-2 in Appendix C identify the typical sensitive species found in these and other vegetation communities in the unincorporated County. The sensitive federal or State-listed (either threatened or endangered) plant and animal species found in the five most heavily impacted habitats are provided below. Other candidate and special status species are also found in these vegetation communities, as identified in Tables C-1 and C-2 in Appendix C.

- **Chaparral.** Dehesa nolina (*Nolina interrata),* Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia),* Encinitas baccharis (*Baccharis vanessae),* Mexican flannelbush (*Fremontodendron mexicanum*), Mojave tarplant (*Deinandra mohavensis),* Nevin's Barberry (*Berberis nevinii*), Orcutt's chorizanthe (*Chorizanthe orcuttiana*), San Diego ambrosia (*Ambrosia pumila),* San Diego button celery (*Eryngium aristulatum parishii*), San Diego Thornmint (*Acanthomintha ilicifolia*), Short leaved dudleya (*Dudleya blochmaniae brevifolia*), Spreading navarretia (*Navarretia fossalis*), Quino checkerspot butterfly (*Euphydryas editha quino)*

- **Coastal Sage Scrub.** Otay mesa mint (*Pogogyne nudiuscula*), San Diego ambrosia, San Diego button celery, San Diego Thornmint, Spreading navarretia, Willowy monardella (*Monardella linoides* viminea), Pacific pocket mouse (*Perognathus longimembris pacificus*), California gnatcatcher

- **Grassland.** Orcutt grass (*Orcuttia californica*), Otay mesa mint, Otay tarplant (*Deinandra conjugens*), San Diego ambrosia, San Diego button celery, San Diego Thornmint Spreading navarretia, Thread-leaved brodeaia (*Brodiaea filifolia*), American peregrine falcon (*Falco peregrinus anatum*), Pacific pocket mouse, Quino checkerspot butterfly, Stephens' kangaroo rat, Swainson's hawk (*Buteo swainsoni*)

- **Sonoran Creosote Bush Scrub (within Desert Scrub).** Pierson's Milkvetch (*Astragalus magdalenae peirsonii*), Peninsular bighorn sheep (*Ovis canadensis nelsoni*), Quino checkerspot butterfly, Swainson's hawk

Additionally, the General Plan Update would have the potential to result in impacts to designated critical habitat. As described in Section 2.4.1.3, the amount of designated critical habitat in the unincorporated County is about 557,000 acres. Approximately 70 percent of this habitat is located in areas that are being designated as National Forest or State Parks. The General Plan Update does not propose land uses within federal and State-owned lands because the County does not have jurisdiction in these areas. However, future development of General Plan Update land uses outside of federal and State-owned parks would have the potential to result in direct impacts to designated critical habitat.

### Indirect Impacts

The indirect impacts to sensitive species and their habitat that would have potential to occur as a result of new development or redevelopment under General Plan Update are described below.

- Water quality in riparian areas would have the potential to be adversely affected by pollutants in runoff and sedimentation under the General Plan Update. Decreased water quality would have the potential to adversely affect the vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Refer to Section 2.8, Hydrology and Water Quality, regarding the proposed projects impacts to water quality.

- Fugitive dust produced by construction under the General Plan Update would have the potential to disperse onto sensitive vegetation adjacent to construction sites. A continual cover of dust would have the potential to reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. In turn, this would have the potential to affect animals dependent on these plants. Refer to Section 2.3, Air Quality, regarding the proposed projects impacts related to fugitive dust during construction.

- Non-native plants would have the potential to colonize development and infrastructure sites and spread into adjacent native habitats. Such colonization may be brought about by landscaping, agriculture, runoff, or soil disturbance. Many non-native plants common to the San Diego region are highly invasive and tend to displace native vegetation, thereby affecting sensitive species and reducing native species diversity overall.

- Edge effects would occur if blocks of habitat were fragmented. New construction and new roadways would have the potential to fragment habitats. Brush management and trail construction or use can also result in potentially significant edge effects to special status plants and wildlife species and/or their supporting habitats. The increased edge between development and habitat makes it easier for non-native plant species to invade native habitats and for both native and non-native predators to access prey that would have otherwise been protected within large, contiguous blocks of habitat.

- Increases in human activity in and adjacent to undeveloped areas as a result of new development of General Plan Update land uses would have the potential to result in degradation of sensitive vegetation. This can result in more fragmented habitat and formation of edges through the creation of unauthorized trails, as well as other impacts such as increased erosion and predation of native species by domesticated animals.

- Construction of new Mobility Element roadways and other infrastructure under the General Plan Update would have the potential to deter wildlife movement, degrade existing vegetation, compact soils, change natural runoff patterns, and facilitate the invasion of nonnative species (CBI 2005).

- Noise that results in indirect impacts is typically associated with construction activity and roadway traffic. To avoid noise impacts, breeding birds and mammals may temporarily or permanently leave their territories, which would have the potential to lead to reduced reproductive success and increased mortality.

- Night lighting on native habitats would have the potential to provide nocturnal predators with an unnatural advantage over their prey. Artificial light can also disrupt other

essential behavioral and ecological processes (e.g., breeding, foraging, migration, etc.). Outdoor lighting used in the development or redevelopment of residential, commercial, industrial, or public/semi-public uses would have the potential to result in a new source of glare and/or lighting.

It has been found that the magnitude of indirect effects, such as those described above, increase greatly with increased densities for development. Based on an analysis completed by the Conservation Biology Institute (CBI) of the proposed General Plan Update in rural areas of the County, densities of one dwelling unit per forty acres (1du/40 acres) or greater have a substantially more severe impact on biological resources, especially sensitive resources, than lower development densities. This is primarily due to the extent of direct habitat loss, fragmentation, and edge effects associated with higher densities in rural areas (CBI 2005).

**Federal, State, and Local Regulations and Existing Regulatory Processes**

As identified in Section 2.4.2, Regulatory Framework, there are a number of federal, State, and local regulations in place to protect special status species.

The federal MBTA prohibits the disturbance of migratory birds including raptors. In addition, the Bald and Golden Eagle Protection Act limits impacts to bald eagles and golden eagles. The federal ESA requires a Section 7 or Section 10 process be undertaken if a project would result in take of a federally listed species, while the CESA prohibits take of State-listed species without securing a Section 2081 permit. These permits may also be achieved through NCCP plans such as the MSCP Plans.

The County's adopted MSCP Subarea Plan covers the southwestern portion of the unincorporated County, depicted as South County MSCP Boundary - Adopted in Figure 2.1-1. It serves to protect designated sensitive plant and animal species and their habitats depending on location and site characteristics. The BMO implements the Subarea Plan, outlines the sensitive resources of concern, and sets forth the specific criteria and requirements that all private and public projects within the South County MSCP boundary must follow.

Outside of existing MSCP Plans, the Southern California Coastal Sage Scrub NCCP is in effect. This interim program enables the County to benefit from interim take provisions established in the USFWS special rule 4(d). The County is allowed a loss of up to 5 percent of its coastal sage scrub habitat if it is actively developing a comprehensive NCCP for the area. The five percent allowed take amounted to 2,953.30 acres initially and the County currently has 1,793.49 acres remaining. The interim take refers to the authorization for removal of coastal sage scrub and/or any incidental impacts to target species (such as California gnatcatcher, coastal cactus wren and orange-throated whiptail) if achieved in accordance with findings set forth in the NCCP Process Guidelines. The HLP Ordinance allows the County to issue these interim "take permits" in the form of Habitat Loss Permits for projects impacting California gnatcatcher and/or coastal sage scrub habitat.

Discretionary projects located outside an existing MSCP Plan area that potentially affect sensitive species and habitats other than California gnatcatcher and coastal sage scrub are evaluated using the County's Guidelines for Determining Significance for Biological Resources.

Certain discretionary projects are also subject to the County's RPO. While this ordinance does not address individual special status species, it does protect resources inhabited or utilized by such species, such as sensitive habitat lands, wetlands, and wetland buffers.

Per the County of San Diego Zoning Ordinance, a zoning designation or Special Area Regulation with certain restrictions related to biological resources is applied to some areas with sensitive biological resources. Zoning designations include Ecological Resource Area Regulations or a Special Area Designator for sensitive resources, coastal resources, or vernal pools.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes policies in the Conservation and Open Space Element and Land Use Element that would reduce the potential for adverse impacts to sensitive species. Goal COS-1 calls for an inter-connected preserve system that is regionally managed and embodies the regional biological diversity of the San Diego County. This goal is supported by Policy COS-1.3 which requires the monitoring, management and maintenance of a regional preserve system to ensure the preservation of special status species. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.9 serves to minimize invasive plants near preserves and removal of invasives within biological preserves. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans. Policy COS-1.11 encourages participation of planning groups in preserve management activities.

Goal COS-2 strives for sustainability of the natural environment such that the natural processes, sensitive lands, and sensitive as well as common species are maintained along with sustainable growth and development. Policies COS-2.1 and COS-2.2 encourage the restoration and limit the degradation of natural habitats and require development to protect the habitat through site design. Goal LU-6 is a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. This goal is supported by Policies LU-6.1 through LU-6.4, LU-6.6, LU-6.7, and M-12.9. These policies support the protection of critical and sensitive natural resources and the long-term sustainability of the natural environment, assign low-density or low-intensity land use designations to areas with sensitive natural resources, support conservation-oriented project design when appropriate and consistent with the applicable community plan, require that trails are designed to minimize impacts to sensitive environmental resources, require that residential subdivisions be planned to conserve open space and natural resources, require incorporation of natural features into proposed development and avoidance of sensitive environmental resources, and encourage contiguous open space areas that protect wildlife habitat and corridors. Additionally, Policy LU-10.2 requires development in semi-rural and rural areas to respect and conserve the unique natural features, preserve rural character, and avoid sensitive environmental resources and natural hazard areas.

**Summary**

Implementation of the General Plan Update would have the potential to result in direct and indirect impacts to special status plant and wildlife species and their habitat. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect biological resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the

proposed project is concluded to result in a potentially significant impact to special status species and their habitats and specific implementation programs are identified as mitigation.

### *2.4.3.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.

**Impact Analysis**

Section 2.4.3.1, Issue 1: Special Status Plant and Wildlife Species, describes the proposed project's impact to sensitive natural communities in the unincorporated County. As stated in this section, the proposed project would result in a potentially significant impact to sensitive habitats in the County from direct and indirect impacts associated with General Plan Update land uses. Therefore, the following section focuses solely on riparian habitats. Riparian communities occur along rivers, streams, and other drainages in the unincorporated County. According to the Riparian Bird Conservation Plan (CPF 2004), riparian habitats are defined as habitats along the banks or otherwise adjacent to freshwater bodies, watercourses, estuaries, and other surface waters. These areas can be perennial, intermittent, or ephemeral. Riparian areas connect terrestrial and aquatic habitats and provide linkages between water bodies and upstream vegetation communities. The available water provides soil moisture in excess of that typically available in upland habitats.

**Direct Impacts**

Similar to other vegetation communities, direct impacts to riparian habitats would include removal or disturbance due to new development. Potential direct impacts to riparian habitats were estimated using the same methodology described above for Issue 1. The acreage of riparian habitat in each CPA and Subregion with the potential to be impacted by the proposed project is identified in Table 2.4-3. The General Plan Update would have the potential to impact 10,131 acres of riparian habitat. The CPAs and Subregions with the greatest acreage of potential direct impacts are the Desert Subregion (1,357 acres), Fallbrook CPA (1,176 acres), Mountain Empire Subregion (885 acres), North County Metro Subregion (752 acres), and Ramona CPA (636 acres). Fallbrook CPA, North County Metro Subregion, and Ramona CPA are located in the western areas of the County where growth under the General Plan Update would be concentrated. The Desert Subregion and Mountain Empire Subregion are proposed for low density development; however, these areas are relatively undeveloped and new development would be more likely to directly affect undisturbed riparian habitats. Table 2.4-4 lists the estimated acreage of each riparian vegetation community that would be impacted by build-out of the General Plan Update. As shown in Table 2.4-4, the riparian habitat types with the potential to be most impacted by future development under the General Plan Update are southern coast live oak riparian forest (3,085 acres), southern cottonwood-willow riparian forest (1,206 acres), and southern riparian scrub (965 acres).

### Indirect Impacts

Indirect impacts to riparian habitats that would have the potential to result from build-out of the General Plan Update include degradation of water quality due to runoff from new urban development, drawdown of the groundwater table by new groundwater-dependent development that depletes the water supply available to riparian vegetation, and the introduction of invasive species. Development under the General Plan Update can potentially modify the natural flow of streams, which would consequently impact aquatic and riparian communities and species dependent on natural streamflow. Additional impervious surface area would also have the potential to increase stormwater runoff, peak discharges, and flood magnitude downstream (CBI 2005). These changes would similarly result in modified streamflow or introduction of pollutants to riparian habitats. As further discussed in Sections 2.8.3.1 and 2.8.3.3, it is expected that non-point source pollutants caused by development of the proposed land uses would degrade water quality within the County's surface waters. Additionally, implementation of the General Plan Update would result in significant impacts to groundwater supply and recharge (Section 2.8.3.2). These direct hydrological effects would, therefore, result in potentially significant indirect impacts to riparian habitats.

### Federal, State, and Local Regulations and Existing Regulatory Processes

As noted above in Issue 1, numerous federal, State and local regulations exist to protect sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFG or USFWS. In addition, there are a number of federal, State, and local regulations in place to protect riparian habitat. The CWA regulates certain impacts to federally protected wetlands as well as non-wetland waters of the U.S. The California Lake and Streambed Alteration Program (Section 1602 of the CDFG Code) requires written notification to CDFG prior to altering a riparian area supported by a lake, river, or stream.

On the local level, the County's RPO restricts certain impacts to wetlands, wetland buffers, floodways, and floodplain fringe areas. The WPO is applied to development permits to minimize impacts to wetlands and water bodies. Additionally, per the County of San Diego Zoning Ordinance, some sensitive lands have Special Area Designators for floodplains, flood channels, or vernal pools.

### Proposed General Plan Update Goals and Policies

The General Plan Update includes Goal COS-3 to protect riparian habitats. Goal COS-3 is wetlands that are restored and enhanced and protected from adverse impacts. This goal is supported by Policy COS-3.1, which requires development to preserve wetlands and riparian habitats to retain opportunities for enhancement and preservation, and to minimize any disturbances when total avoidance is not feasible. The General Plan Update goals and policies identified above in Section 2.4.3.1, Issue 1, would protect other sensitive natural communities.

### Summary

Implementation of the General Plan Update would have the potential to result in direct and indirect impacts to riparian habitat and other sensitive natural communities. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect riparian habitats, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the

proposed project is concluded to result in a potentially significant impact to riparian habitat and other sensitive natural communities and specific implementation programs are identified as mitigation.

### *2.4.3.3 Issue 3: Federally Protected Wetlands*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

**Impact Analysis**

Federally protected wetlands are defined in Section 404 of the CWA as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The natural vegetation communities in the unincorporated County with the potential to contain federally protected wetlands are listed in Table 2.4-5.

Direct impacts to federally protected wetlands would occur if development of the General Plan Update land-use designations resulted in the removal, filling, hydrological interruption, or other disturbance to these resources. For the purpose of this EIR, areas with the potential to support federally protected wetlands were approximated by using topographical and regional vegetation maps for the County. These generalized areas were included in the impact analysis wherever they overlapped with General Plan Update land-use designations, as described in the direct impacts discussion for Issue 1 above. Impacts were not limited to areas where federally protected wetlands have been determined to occur. As such, this represents a conservative or worst-case estimate of impacts to federally defined wetlands. Actual impacts to federally protected wetlands can only be determined through specific site surveys and project-level information.

Table 2.4-6 provides the estimated acreage of impacts to federally protected wetlands in each CPA or Subregion. Approximately 1,841 acres of federally defined wetlands would have the potential to be impacted in the unincorporated County. The areas with the greatest acreage impact potential to federally protected wetlands are Fallbrook CPA (204 acres), North County Metro Subregion (188 acres), Ramona CPA (180 acres), and Jamul/Dulzura Subregion (174 acres). Fallbrook CPA, North County Metro Subregion, and Rainbow CPA are proposed for substantial growth under the General Plan Update; therefore, these areas would have the potential to result in large acres of habitat impacted by direct removal. Most of the Jamul/Dulzura Subregion is proposed for low density rural development; however, this Subregion is relatively undeveloped and any new development near wetlands would have the potential to directly affect riparian vegetation. The CPAs with the lowest potential to impact federally protected wetlands include County Islands CPA (1 acre) and Valle de Oro CPA (11 acres). These CPAs are more urbanized relative to the rest of the unincorporated County and are estimated to result in fewer impacts under the General Plan Update because a large portion of the habitat in these areas has either already been disturbed or has been preserved in perpetuity. Since development of the land uses proposed under General Plan Update may

occur on or near areas mapped as wetlands, direct impacts to federally protected wetlands may result from the proposed project.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

As identified in the Section 2.4.2, Regulatory Framework, and further discussed in Section 2.4.3.2, Issue 2, there are a number of federal, State, and local regulations in place to limit impacts to federally protected wetlands in the County. At the federal level the CWA prohibits the discharge of pollutants or fill materials in waters of the U.S. without obtaining a Section 404 permit from the ACOE and a Section 401 certification from the RWQCB. At the State level the Lake and Streambed Alteration Program requires written notification to CDFG prior to altering a riparian area (a type of wetland) supported by a lake, river, or stream, including federally protected wetlands. For water quality impacts to all wetlands, the California Porter-Cologne Water Quality Control Act directs the RWQCBs to develop regional Basin Plans, which, for the San Diego Region, is designed to preserve and enhance the quality of water resources in the region. At the local level the RPO restricts impacts from certain project types to various wetlands, wetland buffers, floodways, and floodplain fringe areas, which would potentially contain federally protected wetlands. In addition, both the WPO and the Zoning Ordinance include special protections for wetlands that would apply to federally protected wetlands.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes policies in the Conservation and Open Space Element which would reduce the potential for adverse impacts to federally protected wetlands. Conservation and Open Space Element Policy COS-3.1 requires new development to protect and avoid wetland areas. Conservation and Open Space Element Policy 3.2 requires new development to mitigate unavoidable losses to wetlands so that no-net-loss of wetlands occurs and to protect wetlands from discharges.

**Summary**

Implementation of the General Plan Update would have the potential to result in impacts to federal wetlands. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect federally defined wetlands, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to federally protected wetlands and specific implementation programs identified as mitigation would reduce these impacts to less than significant.

### *2.4.3.4 Issue 4: Wildlife Movement Corridors and Nursery Sites*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

## Impact Analysis

A system of corridors and linkages has been established in the southwestern portion of the unincorporated County through the MSCP South County Subarea Plan. Core resource areas and linkages have been established in San Dieguito CPA, North County Metro Subregion, Ramona CPA, Lakeside CPA, Crest/Dehesa Subregion, Jamul/Dulzura Subregion, Otay Subregion, Sweetwater CPA, Spring Valley CPA, and Valle de Oro CPA, as shown in Figure 2.4-2. This figure identifies the adopted core areas and linkages in the South County Subarea Plan, and those proposed in the draft North County Plan. No core areas or linkages have been adopted or proposed in the eastern portion of the unincorporated County. As described in Section 1.7.1.1, development under the General Plan Update would be concentrated in the western portion of the County within the SDCWA boundary, primarily where the CPAs and Subregions covered by the South County Subarea Plan are located. Intensified development in these areas would have the potential to result in direct or indirect impacts to the designated core habitat areas and linkages. Direct impacts to wildlife movement corridors generally occur from blockage or interference with the connectivity between blocks of habitat, a decrease in the width of a corridor or linkage that constrains movement, or the loss of visual continuity within a linkage or corridor. For example, new Mobility Element roadways would have the potential to block a connection between two habitats or new development of General Plan Update land uses would have the potential to present a visual barrier that discourages wildlife movement within a linkage or corridor.

Official corridor and linkage designations have not been established outside the South County Subarea Plan boundary; however build-out of the General Plan Update in the northern and eastern areas of the unincorporated County would have the potential to result in direct or indirect impacts to functioning wildlife movement paths and habitat linkages. Intensified development in town centers that are surrounded by habitat, such as the town centers in the Central Mountain and Mountain Empire Subregions, would have the potential to result in disruption of wildlife movement through increased encroachment or fragmentation. Indirect impacts may also occur from increased noise levels or nighttime lighting that would discourage movement within corridors or linkages.

Future development under the General Plan Update would also have the potential to result in a significant impact to nursery sites. Nursery sites are located throughout the unincorporated County and include areas that provide the resources necessary for reproduction of a species, including foraging habitat, breeding habitat, and water sources. Determining whether or not a specific area is a nursery site requires field surveys, which are often only valid for a given breeding season depending on the wildlife species present. As described in Section 2.4.3.1, Issue 1: Special Status Plant and Wildlife Species, the proposed project would result in a potentially significant impact to sensitive natural habitats in the County, and various natural habitats have the potential to include nursery sites. Direct impacts to nursery sites from implementation of the General Plan Update would include removal of habitat for development and infrastructure. Indirect impacts to nursery sites would have the potential to result from noise, lighting, changes in drainage patterns, and introduction of pests or domestic animals. These impacts can substantially interfere with native wildlife nursery sites. Therefore, the proposed project would have the potential to directly or indirectly impact nursery sites.

### Federal, State, and Local Regulations and Existing Regulatory Processes

There are a number of federal, State, and local regulations in place to protect wildlife movement corridors in the County. At the State level, the NCCP Act facilitates region-wide conservation efforts. As part of the process in determining natural community conservation areas, wildlife movement corridors are considered. The County has one approved NCCP, which is the MSCP South County Subarea Plan in the southwest portion of the unincorporated County. Regional habitat linkages and corridors have been identified in this conservation plan (see Figure 2.4-2). Pursuant to the BMO, development projects must generally avoid corridors and linkages within the MSCP to the maximum extent practicable.

The County is preparing NCCP plans (north and east) to cover the remaining lands under the County's jurisdiction. Potential habitat linkages and corridors have been identified for the draft North County Plan (see Figure 2.4-2); however, these features will not be formally designated until the plan is adopted. Linkages and corridors have not yet been identified for the draft East County Plan. Until these plans are in effect, the County will continue to use all available biological data and mapping applications to identify potential movement paths and nursery sites. The County's Guidelines for Determining Significance for Biological Resources are then used to evaluate the potential effects of private and public projects on wildlife movement, corridors, and nursery sites.

### Proposed General Plan Update Goals and Policies

The General Plan Update includes policies in the Conservation and Open Space Element and Land Use Element that would reduce the potential for adverse impacts to sensitive species. Conservation and Open Space Element Goal COS-1 is a regionally managed, inter-connected preserve system that embodies the regional diversity of the County of San Diego. This goal is supported by Policies COS-1.1 through COS-1.11. Policy COS-1.1 would identify and provide a coordinated biological preserve system that includes Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges. Policy COS-1.2 prohibits private development within established preserves. Policy COS-1.3 requires the monitoring, management and maintenance of a regional preserve system to ensure the preservation of special status species. Policies COS-1.4 and COS-1.5 require collaboration with other jurisdictions to achieve resource preservation and management goals. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.9 serves to minimize invasive plants near preserves and removal of invasives within biological preserves. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans. Policy COS-1.11 encourages participation of planning groups in preserve management activities.

Goal LU-6 is a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. This goal is supported by Policies LU-6.1 and LU-6.7 that support the protection of critical and sensitive natural resources, support the long-term sustainability of the natural environment, and encourage contiguous open space areas that protect wildlife habitat and corridors.

### Summary

Implementation of the General Plan Update would have the potential to result in impacts to wildlife movement corridors and the use of native wildlife nursery sites. While existing County

policies and regulations and proposed General Plan Update goals and policies are intended to protect wildlife movement corridors and nursery sites, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to wildlife movement corridors and nursery sites and specific implementation programs are identified as mitigation.

### *2.4.3.5 Issue 5: Local Policies and Ordinances*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

**Impact Analysis**

The County's local policies and ordinances that protect biological resources include the MSCP Plan, RPO, BMO, and HLP Ordinance. As described above under Section 2.4.2, Regulatory Framework, all of these policies and ordinances address the protection of biological resources. As further described above under Issues 1 through 4, development under the General Plan Update has the potential to impact sensitive plant and animal species, riparian and other natural communities, wetlands, and habitat linkages/corridors that are identified for protection under the MSCP Plan, BMO, HLP Ordinance, Southern California Coastal Sage Scrub NCCP Process Guidelines, and the RPO. As part of the General Plan Update, the County would amend the RPO to allow some additional flexibility in project design while maintaining protection of significant natural resources. Other regulatory processes already in place to implement the MSCP, BMO, HLP Ordinance, Southern California Coastal Sage Scrub NCCP Process Guidelines, and RPO would not be modified by the General Plan Update. Future development under the General Plan Update would still be required to comply with these ordinances when applicable. These processes are described in more detail below.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

There are no State and/or federal regulations that apply to this issue. However, some projects would require consultation with the USFWS and/or the CDFG depending on the resources affected and the jurisdictional regulations in place.

Under existing County regulations and regulatory processes, in order for discretionary projects under the proposed General Plan Update to be approved and developed, they would be required to conform to the County's MSCP and HLP processes and demonstrate compliance with applicable ordinances. If a project site is devoid of native vegetation and supports only urban/developed land, active agriculture, eucalyptus woodland and/or disturbed land, then a biological report would not be necessary (or a minimal survey would be conducted). For projects having other vegetation communities, a biological resource report is requested by the County in order to evaluate them pursuant to the BMO, RPO, HLP Ordinance, and CEQA environmental review requirements.

Projects located within the boundaries of the existing MSCP South County Subarea Plan are reviewed for consistency with the Plan and the BMO. County and public projects such as

infrastructure improvements are also subject to MSCP conformance review. The BMO provides predetermined mitigation ratios, directs mitigation to biological resource core areas, and gives criteria for project design and preserve design in order to be consistent with the MSCP Plan. Application of the BMO to projects within the MSCP Plan boundary ensures that development will not conflict with the provisions of the Subarea Plan. Section 86.503(a) of the BMO lists the types of projects that are exempt from the BMO. While some projects would be exempt from the BMO, they must still conform to the MSCP South County Subarea Plan. If a project is in the County's adopted Subarea Plan, MSCP Conformance Findings must be prepared for the project based on both MSCP and BMO standards.

Outside of the MSCP South County Subarea Plan boundary, the Southern California Coastal Sage Scrub NCCP is in effect. This program enables the County to benefit from interim take provisions established in the USFWS special rule (4[d] rule). The interim take refers to the authorization for removal of coastal sage scrub and/or any incidental impacts to target species (such as coastal California gnatcatcher and orange-throated whiptail) if achieved in accordance with findings set forth in the NCCP Process Guidelines. Application of the NCCP Process Guidelines and the HLP Ordinance to projects with the potential to impact coastal sage scrub ensures that development will not conflict with the provisions of the Southern California Coastal Sage Scrub NCCP program. This interim process is proposed to be replaced with established MSCP Plans for North County and East County. Until then, authorization to impact coastal sage scrub is issued in the form of a HLP. For projects that will affect coastal sage scrub, NCCP 4(d) findings must be made to the satisfaction of the USFWS and the CDFG.

Additionally, future proposed projects requiring certain permit types such as TMs, TPMs, rezones, MUPs, and site plans, would be subject to the requirement to prepare a Resource Protection Study under the RPO. The RPO restricts to varying degrees impacts to natural resources including wetlands, wetland buffers, floodplains, steep slopes, and sensitive habitat lands. Additional local policies and ordinances discussed above in Section 2.4.2.3 that protect biological resources include the Zoning Ordinance Special Area Regulations and BOS Policy I-123.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes policies in the Conservation and Open Space Element intended to ensure compliance with local policies and ordinances. Conservation and Open Space Element Policy COS-1.2 would prohibit private development within established habitat preserves. Conservation and Open Space Element Policy COS-1.3 requires the monitoring, management and maintenance of a regional preserve system, such as the MSCP preserves, to ensure the preservation of special status species. Policy COS-1.9 serves to minimize invasive plants near preserves and promotes the removal of invasive species within biological preserves.

**Summary**

Future projects proposed under the General Plan Update would be required to comply with applicable local policies and ordinances. Regulatory processes to ensure compliance are already in place and would not be impacted by the General Plan Update. Therefore, a potentially significant impact associated with conflicts with local policies and ordinances would not occur.

### *2.4.3.6 Issue 6: Habitat Conservation Plans and NCCPs*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

**Impact Analysis**

An MSCP Plan is a combined HCP and NCCP. The MSCP South County Subarea Plan and the Coastal Sage Scrub NCCP Process Guidelines are the applicable HCPs and NCCPs for the unincorporated County. The BMO implements the South County Subarea Plan. As discussed above in Section 2.4.3.5, Issue 5: Local Policies and Ordinances, future development would be required to comply with the MSCP Plan, BMO, and the Coastal Sage Scrub NCCP Process Guidelines.

Additional adopted NCCPs and HCPs are located within the County of San Diego, but apply to other agency/special district activities. Two examples of adopted NCCPs or HCPs in the County are the SDG&E Company Subregional Plan and the Sweetwater River HCP. Future development in areas where adopted NCCPs and HCPs exist would comply with the applicable plan, as required by the CDFG or USFWS. The NCCP/HCP Plan for SDG&E, approved in 1995, encompasses SDG&E's jurisdiction within the entire unincorporated County west of the Anza-Borrego Desert and applies only to projects proposed by SDG&E or on SDG&E property rights-of-way and/or easements. The project covers 110 plant and animal species and emphasizes avoidance of impacts. The plan establishes mitigation requirements, which would have the potential to include revegetation or use of up to 240 acres of mitigation credits set aside in several land parcels purchased by SDG&E as mitigation banks (DFG 2008b). Future development under the General Plan Update on land covered by the SDG&E NCCP would be required to comply with the adopted mitigation requirements. The Sweetwater River HCP, published in 1991, was prepared as part of the Comprehensive Species Management Plan (CSMP) for the endangered least Bell's vireo. The HCP identifies riparian habitat to be protected, conserved, managed, and reclaimed to ensure protection and recovery of the species within the focused planning area. This area generally includes the 100-yr floodplain plus a 150-foot buffer of the Sweetwater River from San Diego Bay to the Loveland Reservoir (CRA 2008). Future development accommodated by General Plan Update in this planning area would be required to comply with the HCP. Additional NCCPs and HCPs are being prepared and undergoing review process for adoption by CDFG, such as the San Diego Joint Water Agencies NCCP. Future development under the General Plan Update with the participating jurisdictions would be required to comply with all applicable NCCPs and HCPs that have been adopted at the time the development is proposed.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

There are numerous federal, State and local regulations in place to ensure that adopted HCPs, NCCPs, and other conservation plans are successful. The federal ESA provides the basis for preparing a Habitat Conservation Plan in Section 10 for the purpose of issuing incidental take permits. Each HCP includes a method for monitoring and evaluating its success. The HCP Handbook released in November 1996 establishes the general process. The addendum to the HCP handbook, provided in 2000, expanded upon the process to include biological goals and

adaptive management strategies. Such strategies have also been included in the State NCCP process.

The MSCP Plan, BMO, and the Coastal Sage Scrub NCCP Process Guidelines and associated regulatory processes are described above in Section 2.4.3.5, Issue 5: Local Policies and Ordinances.

**Proposed General Plan Update Goals and Policies**

Some General Plan Update policies intended to ensure compliance with the applicable HCPs and NCCPs are listed in Section 2.4.3.5, Issue 5: Local Policies and Ordinances. These policies are Policy COS-1.2, Policy COS-1.3, and Policy COS-1.9. In addition, Policies COS-1.4 and COS-1.5 require collaboration with other jurisdictions to achieve resource preservation and management goals. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans.

**Summary**

Future projects proposed under the General Plan Update would be required to comply with applicable HCPs and NCCPs. Regulatory processes to ensure compliance are already in place and would not be impacted by the General Plan Update. Therefore, a potentially significant impact associated with conflicts with HCPs and NCCPs would not occur.

## 2.4.4 Cumulative Impact Analysis

The cumulative analysis for biological resources first identifies the geographic area within which the resource has the potential to occur. Therefore, the geographic scope for the biological resources cumulative analysis is the San Diego region, including both incorporated and unincorporated areas, and surrounding Counties.

### *2.4.4.1 Issue 1: Special Status Plant and Wildlife Species*

Cumulative projects located in the San Diego region would have the potential to result in impacts to special status plant and wildlife species, including loss of habitat. Several of the cumulative projects listed in Table 1-11 are large developments that are planned within undeveloped areas and would likely result in loss of habitat or edge effects that would significantly impact special status plant and wildlife species. One such example is the Warner Ranch project in the Pala/Pauma Valley Subregion which proposes 900 new residential units. Adjacent jurisdictions, including incorporated cities, adjacent counties, tribal governments, and federal and State-managed lands would be required to comply with applicable federal and/or State regulations that provide protections for special status plant and wildlife species such as the Federal ESA, the CESA, and the California NCCP Act. In addition, some projects that affect special status species require approval from the USFWS and the CDFG. If significant impacts occur from particular cumulative projects, then mitigation measures are usually implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of special status plant and wildlife species for the entire southern California region, a cumulative loss of habitat supporting special status plant and wildlife species would occur, even after mitigation has been implemented for individual projects. Therefore, a

significant cumulative impact associated with special status plant and wildlife species would occur.

As discussed in Section 2.4.3.1 above, development and redevelopment under the proposed General Plan Update would have the potential to impact special status species. The County has adopted an MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for North County and East County areas. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

### *2.4.4.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities*

Cumulative projects located in the San Diego region have the potential to result in impacts associated with riparian habitat and other sensitive natural communities through direct and indirect loss or degradation. For example, some of the cumulative projects listed in Table 1-11 are large developments in undisturbed areas that affect riparian habitat. One such project is Jacumba Valley Ranch in the Mountain Empire Subregion, which proposes 2,125 new residential units. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, would be required to comply with applicable federal and/or State regulations such as the California Lake and Streambed Alteration Program or the California NCCP Act. These programs provide protections for riparian and other sensitive habitats. In addition, many projects that affect riparian or other protected habitat types require approval from the USFWS and the CDFG. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of sensitive natural communities for the entire southern California region, a cumulative loss of riparian and other sensitive habitat would occur, even after mitigation has been implemented for individual projects. Therefore, a significant cumulative impact associated with special status plant and wildlife species would occur.

As discussed in Section 2.4.3.2 above, development and redevelopment under the proposed General Plan Update would have the potential to impact riparian and other sensitive habitats. The County has adopted the MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for the North County and East County. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

### *2.4.4.3 Issue 3: Federally Protected Wetlands*

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact associated with federally protected wetlands. For example, several cumulative projects listed in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, are large developments in previously undeveloped areas that would have the potential to result in disturbances to federally protected wetlands. One example is the Rancho Lilac project in Valley Center CPA which proposes 360 new residential units in an area with potential to contain federally protected wetlands. Adjacent jurisdictions, including incorporated cities, adjacent counties, tribal lands, and federal and State-managed lands, would

be required to comply with applicable federal regulations such as Section 401 and 404 of the CWA. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible to meet the no-net-loss standard. Existing regulations would ensure that a significant cumulative impact associated with federally protected wetlands would not occur. Therefore, the proposed project would not contribute to a significant cumulative impact.

### *2.4.4.4 Issue 4: Wildlife Movement Corridors and Nursery Sites*

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact associated with wildlife movement corridors and nursery sites. For example, development of the proposed transportation projects listed in Table 1-8, 2030 San Diego Regional Transportation Plan Projects, such as the proposed high occupancy vehicle connector between the I-15 and SR-94, would have the potential to block an existing wildlife movement corridor or remove habitat used as a nursery site. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands would be required to comply with applicable federal and/or State regulations such as the California NCCP Act. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of wildlife movement corridors and nursery sites for the entire southern California region, a cumulative loss of wildlife movement corridors and nursery sites would occur, even after mitigation has been implemented for individual projects. Therefore, a significant cumulative impact associated with wildlife movement corridors and nursery sites would occur.

As discussed in Section 2.4.3.4 above, the General Plan Update would have the potential to impact wildlife movement corridors and nursery sites. The County has adopted an MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for the North County and East County. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

### *2.4.4.5 Issue 5: Local Policies and Ordinances*

Cumulative projects under the County's jurisdiction are required to comply with applicable local policies and ordinances, such as the MSCP Plan or the Southern California Coastal Sage Scrub NCCP Process Guidelines, in order for such projects to be approved. For example, the cumulative projects in the unincorporated County listed in Table 1-11, Projects Not Included In The Proposed General Plan Update Land Use Map, are subject to local County of San Diego policies and ordinances. However, it cannot be determined with certainty that regional projects in other jurisdictions would conform to applicable local ordinances.

As discussed in 2.4.3.5 above, the proposed General Plan Update would not be in conflict with any local policies or ordinances as the County is ensuring consistency among its regulations during this comprehensive update. Therefore, the proposed project would not contribute to a significant cumulative impact.

### *2.4.4.6 Issue 6: Habitat Conservation Plans and NCCPs*

Cumulative projects in the San Diego region are required to comply with applicable HCPs or NCCPs, such as the San Diego MSCP or the Southern California Coastal Sage Scrub NCCP. For example, many of the cumulative projects listed in Table 1-11, Projects Not Included In The Proposed General Plan Update Land Use Map, are located in the MSCP South County Subarea Plan and are therefore required to make findings of conformance with the MSCP and BMO. However, it cannot be determined with certainty that regional projects in other jurisdictions would take steps to prevent conflicts with federal and State HCP and NCCP agreements.

As discussed in 2.4.3.6 above, the proposed General Plan Update would not be in conflict with any known HCPs or NCCPs. Therefore, the proposed project would not contribute to a significant cumulative impact.

## 2.4.5 Significance of Impact Prior to Mitigation

The proposed project would result in potentially significant impacts associated with biological resources including special status species, riparian and other sensitive natural communities, federally protected wetlands, and wildlife movement corridors. The proposed project would not result in potentially significant impacts to local policies and ordinances or to HCPs and NCCPs.

## 2.4.6 Mitigation

### *2.4.6.1 Issue 1: Special Status Species*

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impact associated with special status species and their habitats. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of an adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to species identified as a candidate, sensitive, or special status species. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with special status species and their habitats; however, not to below a significant level. An additional mitigation measure has been identified that would fully reduce impacts to below a level of significance; however, the County has determined that its implementation would be infeasible. A discussion of infeasible mitigation measure, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measure was considered in attempting to reduce impacts to special status species to below a level of significance. However, the County has determined that this measure could not be assured in the Mitigation, Monitoring, and Reporting Program as described below; therefore, this measure cannot be included as mitigation for the General Plan Update.

- Adopt MSCP Plans for North County and East County that provide coverage for special status species as well as protections for wildlife corridors, habitat linkages, and core habitat areas in those regions. This measure is feasible and attainable as the County is

currently in the process of preparing such plans. However, these conservation plans require approval at the federal and State levels, which the County cannot guarantee ahead of time. In addition, the timing of these programs (i.e., MSCP adoption and implementation) may not coincide with General Plan Update impacts in these areas. Therefore, this measure cannot be considered feasible mitigation for the proposed project.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with special status species and their habitats as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with special status species, although not to below a significant level.

**Policy COS-1.3: Management.** Monitor, manage and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

**Policy COS-1.6: Assemblage of Preserve Systems.** Support the proactive assemblage of a biological preserve system to protect biological resources and to facilitate development through mitigation banking opportunities.

**Policy COS-1.7: Preserve System Funding.** Provide adequate funding for assemblage, management, maintenance, and monitoring through coordination with other jurisdictions and agencies.

**Policy COS-1.8: Preserve Assemblage.** Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.

**Policy COS-1.9: Invasive Species.** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.

**Policy COS-1.10: Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

**Policy COS-1.11: Volunteer Preserve Monitor.** Encourage the formation of volunteer preserve managers that are incorporated into each community planning group to supplement professional enforcement staff.

**Policy COS-2.1: Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

**Policy COS-2.2: Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

**Policy LU-6.1: Environmental Sustainability.** Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.

**Policy LU-6.2: Reducing Development Pressures.** Assign lowest-density or lowest-intensity land use designations to areas with sensitive natural resources.

**Policy LU-6.3: Conservation-Oriented Project Design.** Support conservation-oriented project design. This can be achieved with mechanisms such as, but not limited to, Specific Plans, lot area averaging, and reductions in lot size with corresponding requirements for preserved open space (Planned Residential Developments). Projects that rely on lot size reductions should incorporate specific design techniques, perimeter lot sizes, or buffers, to achieve compatibility with community character. [See applicable community plan for possible relevant policies.]

**Policy LU-6.4: Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [See applicable community plan for possible relevant policies.]

**Policy LU-6.6: Integration of Natural Features into Project Design.** Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.

**Policy LU-6.7: Open Space Network.** Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

**Policy LU-10.2: Development-Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with special status species, although not to below a significant level.

**Bio-1.1** Create a Conservation Subdivision Program that facilitates conservation-oriented project design through changes to the Subdivision Ordinance, Resource Protection Ordinance, Zoning Ordinance, Groundwater Ordinance, and other regulations as necessary. It is intended that these changes will promote conservation of natural resources and open space while improving mechanisms for flexibility in project design so that production of housing stock is not negatively impacted. Additionally, any such allowances of

flexibility must be done with consideration of community character through planning group coordination and/or findings required for project approval.

**Bio-1.2** Implement and revise existing Habitat Conservation Plans/Policies to preserve sensitive resources within a cohesive system of open space. In addition, continue preparation of MSCP Plans for North County and East County.

**Bio-1.3** Implement conservation agreements through Board Policy I-123, as this will facilitate preservation of high-value habitat in the County's MSCP Subarea Plan.

**Bio-1.4** Coordinate with nonprofit groups and other agencies to acquire preserve lands.

**Bio-1.5** Utilize County Guidelines for Determining Significance for Biological Resources to identify adverse impacts to biological resources. Also utilize the County's Geographic Information System (GIS) records and the Comprehensive Matrix of Sensitive Species to locate special status species populations on or near project sites. This information will be used to avoid or mitigate impacts as appropriate.

**Bio-1.6** Implement the RPO, BMO, and HLP Ordinance to protect wetlands, wetland buffers, sensitive habitat lands, biological resource core areas, linkages, corridors, high-value habitat areas, subregional coastal sage scrub focus areas, and populations of rare, or endangered plant or animal species.

**Bio-1.7** Minimize edge effects from development projects located near sensitive resources by implementing the County Noise Ordinance, the County Groundwater Ordinance, the County's Landscaping Regulations (currently part of the Zoning Ordinance), and the County Watershed Protection, Storm Water Management, and Discharge Control Ordinance.

### *2.4.6.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities*

The General Plan Update policies and mitigation measures provided below would minimize the proposed project's potentially significant impacts associated with the riparian habitat and sensitive natural communities. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of any adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to sensitive habitats. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with riparian and other sensitive natural communities; however, not to below a significant level.

As described above in Section 2.4.6.1, an additional mitigation measure was considered in attempting to reduce impacts associated with riparian and other sensitive natural communities to a less than significant level; however, the County determined that this measure would be infeasible for the reasons outlined above. Therefore, the infeasible mitigation measure identified in Section 2.4.6.1 would not be implemented as part of the General Plan Update

project, and impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with riparian and other sensitive natural communities as compared to the proposed project.

**General Plan Update Policies**

The policies listed under Section 2.4.6.1 for Issue 1 are applicable to sensitive natural communities and are incorporated here by reference. In addition, the following policy would reduce direct and indirect project impacts to riparian habitat, although not to below a significant level.

**COS-3.1: Wetland Protection.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

**Mitigation Measures**

The mitigation measures listed under Section 2.4.6.1 for Issue 1 are applicable to sensitive natural communities and are incorporated here by reference. In addition, the following measures would further reduce direct and indirect project impacts to riparian and other sensitive habitats, although not to below a significant level.

**Bio-2.1** Revise the Ordinance Relating to Water Conservation for Landscaping to incorporate appropriate plant types and regulations requiring planting of native or compatible non-native, non-invasive plant species in new development.

**Bio-2.2** Require that development projects obtain CWA Section 401/404 permits issued by the California Regional Water Quality Control Board and U.S. Army Corps of Engineers for all project-related disturbances of waters of the U.S. and/or associated wetlands. Also continue to require that projects obtain Fish and Game Code Section 1602 Streambed Alteration Agreements from the California Department of Fish and Game for all project-related disturbances of streambeds.

**Bio-2.3** Ensure that wetlands and wetland buffer areas are adequately preserved whenever feasible to maintain biological functions and values.

**Bio-2.4** Implement the Watershed Protection, Storm Water Management, and Discharge Control Ordinance to protect wetlands.

### *2.4.6.3 Issue 3: Federally Protected Wetlands*

The following General Plan Policies and mitigation measures would reduce impacts to federally protected wetlands to a less than significant level.

**General Plan Update Policies**

**Policy COS-3.1: Wetland Protection.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

**Policy COS-3.2: Minimize Impacts of Development.** Require development projects to:

- Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
- Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

**Mitigation Measures**

Mitigation measures Bio-1.1, Bio-1.5, Bio-1.6, Bio-1.7, Bio-2.2, Bio-2.3, and Bio-2.4 described above in Sections 2.4.6.1 and 2.4.6.2 would mitigate impacts to federally protected wetlands to a less than significant level and are incorporated here by reference.

### *2.4.6.4 Issue 4: Wildlife Movement Corridors and Nursery Sites*

The General Plan Update policies and mitigation measures provided below would minimize the proposed project's potentially significant impacts associated with wildlife movement corridors and nursery sites. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of an adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to corridors, linkages, and nursery sites. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with wildlife movement corridors and nursery sites; however, not to below a significant level.

As described above in Section 2.4.6.1, an additional mitigation measure was considered in attempting to reduce impacts associated with wildlife corridors and nursery sites to a less than significant level; however, the County determined that this measure would be infeasible for the reasons outlined above. Therefore, the infeasible mitigation measure identified in Section 2.4.6.1 would not be implemented as part of the General Plan Update project, and impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with wildlife corridors and nursery sites as compared to the proposed project.

**General Plan Update Policies**

**Policy COS-1.1: Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

**Policy COS-1.2: Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.

**Policy COS-1.3. Management.** Monitor, manage and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

**Policy COS-1.4: Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

**Policy COS-1.5: Regional Funding.** Collaborate with other jurisdictions and federal, state, and local agencies to identify regional, long-term funding mechanisms that achieve common resource management goals.

**Policy LU-6.1: Environmental Sustainability.** Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.

**Policy LU-6.7: Open Space Network.** Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

**Mitigation Measures**

Mitigation measures Bio-1.1, Bio-1.2, Bio-1.3, Bio-1.4, Bio-1.5, Bio-1.6, Bio-1.7 and Bio-2.3 as described above would reduce impacts to wildlife corridors and nursery sites and are incorporated here by reference; however, impacts would not be reduced to a level less than significant.

### *2.4.6.5 Issue 5: Local Policies and Ordinances*

Impacts associated with conflicts with local policies and ordinances would be less than significant; therefore, mitigation is not required.

### *2.4.6.6 Issue 6: Habitat Conservation Plans and NCCPs*

Impacts associated with conflicts with HCPs and NCCPs would be less than significant; therefore, mitigation is not required.

## 2.4.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.4.7.1 Issue 1: Special Status Species*

Implementation of the proposed General Plan Update would have the potential to directly and indirectly result in the loss of special status species. Therefore, the proposed project would result in a potentially significant impact to these resources. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with special status species would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with special status species and their habitats.

### 2.4.7.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities

Implementation of the proposed General Plan Update would have the potential to result in direct and indirect impacts to riparian habitat and other sensitive natural communities. Therefore, the proposed project would result in a potentially significant impact to these resources. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with riparian habitat and other sensitive natural communities would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with riparian habitat and other sensitive natural communities.

### 2.4.7.3 Issue 3: Federally Protected Wetlands

Implementation of the proposed General Plan Update would have the potential to result in a potentially significant direct impact to federally protected wetlands. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate the impacts to below a level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact.

### 2.4.7.4 Issue 4: Wildlife Movement Corridors and Nursery Sites

Implementation of the proposed General Plan Update would have the potential to impact wildlife movement corridors. Therefore, the proposed project would result in a potentially significant impact. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with wildlife movement corridors and nursery sites would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with wildlife movement corridors and nursery sites.

### 2.4.7.5 Issue 5: Local Policies and Ordinances

Implementation of the proposed General Plan Update would not conflict with local biological resources related policies and ordinances. Therefore, the proposed project would not result in a significant impact to local policies and ordinances. Additionally, the proposed project would not contribute to a significant cumulative impact.

### 2.4.7.6 Issue 6: Habitat Conservation Plans and NCCPs

Implementation of the proposed General Plan Update would not conflict with any applicable HCP or NCCP. Therefore, the proposed project would not result in a significant impact. Additionally, the proposed project would not contribute to a significant cumulative impact.

## Table 2.4-1. Total Habitat Impacts by CPA and Subregion

| CPA/Subregion | Total Acres Impacted |
|---|---|
| Alpine CPA Total | 5,975 |
| Bonsall CPA Total | 6,503 |
| Central Mountain Subregion Total | 4,640 |
| Cuyamaca Total | 1,242 |
| Descanso Total | 1,138 |
| Pine Valley Total | 1,743 |
| Central Mountain Remainder | 517 |
| County Islands CPA Total | 32 |
| Crest/Dehesa Subregion Total | 3,999 |
| Desert Subregion Total | 19,030 |
| Borrego Springs Total | 15,182 |
| Desert Remainder Total | 3,848 |
| Fallbrook CPA Total | 8,626 |
| Jamul/Dulzura Subregion Total | 12,832 |
| Julian CPA Total | 6,125 |
| Lakeside CPA Total | 6,828 |
| Mountain Empire Subregion Total | 15,617 |
| Boulevard Total | 3,689 |
| Jacumba Total | 2,781 |
| Lake Morena/Campo Total | 4,980 |
| Potrero Total | 2,901 |
| Tecate Total | 818 |
| Mountain Empire Remainder Total | 438 |
| North County Metro Subregion Total | 12,947 |
| Hidden Meadows Total | 4,006 |
| Twin Oaks Total | 2,156 |
| North County Metro Remainder Total | 6,793 |
| North Mountain Subregion Total | 14,390 |
| Palomar Mountain | 1,871 |
| North Mountain Remainder Total | 12,519 |
| Otay Subregion Total | 3,861 |
| Pala/Pauma Subregion Total | 9,798 |
| Pendleton/De Luz CPA Total | 2,246 |
| Rainbow CPA Total | 2,102 |
| Ramona CPA Total | 15,245 |
| San Dieguito CPA Total | 6,894 |
| Spring Valley CPA Total | 756 |
| Sweetwater CPA Total | 858 |
| Valle De Oro CPA Total | 1,199 |
| Valley Center CPA Total | 14,259 |
| **Countywide Total** | **174,750** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.4-2. Countywide Habitat Impacts by Vegetation Community

| Habitat Impacted | Total Acres Impacted |
|---|---|
| Chaparral | 55,058 |
| Diegan Coastal Sage Scrub | 31,186 |
| Non-Native Grassland | 14,005 |
| Sonoran Creosote Bush Scrub | 10,775 |
| Coast Live Oak Woodland | 9,601 |
| Field/Pasture | 8,410 |
| Lower Montane Coniferous Forest | 5,293 |
| Red Shank Chaparral | 4,325 |
| Native Grassland | 4,233 |
| Engelmann Oak Woodland | 3,261 |
| Southern Coast Live Oak Riparian Forest | 3,085 |
| Desert Saltbush Scrub | 3,030 |
| Coastal Sage-Chaparral Scrub | 2,864 |
| Sonoran Desert Mixed Scrub | 2,287 |
| Semi-Desert Chaparral | 1,952 |
| Foothill/Mountain Perennial Grassland | 1,443 |
| Mixed Oak Woodland | 1,389 |
| Southern Cottonwood-willow Riparian Forest | 1,206 |
| Southern Riparian Scrub | 965 |
| Flat-topped Buckwheat | 711 |
| Mesquite Bosque | 613 |
| Mixed Evergreen Forest | 610 |
| Southern Sycamore-alder Riparian Woodland | 595 |
| Black Oak Woodland | 548 |
| Encelia Scrub | 503 |
| Great Basin Scrub | 433 |
| Freshwater | 420 |
| Montane Chaparral | 414 |
| Southern Willow Scrub | 396 |
| Alkali Seep | 340 |
| Southern Riparian Forest | 337 |
| Southern Maritime Chaparral | 337 |
| Non-Vegetated Channel, Floodway, Lakeshore Fringe | 292 |
| Desert Dry Wash Woodland | 259 |
| Disturbed Wetland | 60 |
| Colorado Desert Wash Scrub | 212 |
| Coast Live Oak Forest | 206 |
| Upper Sonoran Ceanothus Chaparral | 200 |
| Wet Montane Meadow | 194 |
| Scrub Oak Chaparral | 186 |
| Alkali Playa Community | 185 |
| Mule Fat Scrub | 170 |

**Table 2.4-2 (Continued)**

| Habitat Impacted | Total Acres Impacted |
|---|---|
| Peninsular Pinon and Juniper Woodlands | 161 |
| Freshwater Seep | 152 |
| Undifferentiated Open Woodland | 150 |
| Acacia Scrub | 142 |
| Mafic Chaparral | 141 |
| Mojavean Desert Scrub | 128 |
| Desert Dunes | 74 |
| Desert Sink Scrub | 126 |
| Freshwater Marsh | 120 |
| Sonoran Wash Scrub | 119 |
| Jeffrey Pine Forest | 104 |
| Upper Sonoran Subshrub Scrub | 102 |
| Alluvial Fan Scrub | 77 |
| Black Oak Forest | 70 |
| Alkali Marsh | 47 |
| Meadow and Seep | 46 |
| White Alder Riparian Forest | 34 |
| Montane Meadow | 30 |
| Dry Montane Meadows | 29 |
| Tamarisk Scrub | 29 |
| Coastal Scrub | 22 |
| Riparian Woodlands | 22 |
| Interior Live Oak Chaparral | 18 |
| Southern Interior Cypress Forest | 17 |
| Riversidian Sage Scrub | 16 |
| Oak Woodland | 15 |
| Riparian Forests | 13 |
| Vernal Pool | 12 |
| Open Water | 11 |
| Maritime Succulent Scrub | 6 |
| Southern Arroyo Willow Riparian Forest | 5 |
| Alkali Meadows and Seeps | 3 |
| Riparian and Bottomland Habitat | 3 |
| Coast Range, Klamath and Peninsular Coniferous Forest | 2 |
| Stabilized Alkaline Dunes | 2 |
| Estuarine | 1 |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.4-3. Total Impacts to Riparian Habitat by CPA or Subregion

| CPA/Subregion | Total Acres Impacted |
|---|---|
| Alpine CPA Total | 454 |
| Bonsall CPA Total | 543 |
| Central Mountain Subregion Total | 175 |
| Cuyamaca Total | 27 |
| Descanso Total | 50 |
| Pine Valley Total | 85 |
| Central Mountain Subregion - Remainder Total | 13 |
| County Islands CPA Total | 5 |
| Crest/Dehesa Subregion Total | 526 |
| Desert Subregion Total | 1,357 |
| Borrego Springs Total | 1,006 |
| Desert Subregion - Remainder Total | 351 |
| Fallbrook CPA Total | 1,176 |
| Jamul/Dulzura Subregion Total | 562 |
| Julian CPA Total | 172 |
| Lakeside CPA Total | 486 |
| Mountain Empire Subregion Total | 885 |
| Boulevard Total | 113 |
| Jacumba Total | 408 |
| Lake Morena/Campo Total | 220 |
| Potrero Total | 114 |
| Tecate Total | 2 |
| Mountain Empire Subregion - Remainder Total | 28 |
| North County Metro Subregion Total | 752 |
| Hidden Meadows Total | 129 |
| Twin Oaks Total | 84 |
| North County Metro Subregion - Remainder Total | 539 |
| North Mountain Subregion Total | 634 |
| Palomar Mountain Total | 131 |
| North Mountain Subregion - Remainder Total | 503 |
| Otay Subregion Total | 59 |
| Pala/Pauma Subregion Total | 396 |
| Pendleton/De Luz CPA Total | 169 |
| Rainbow CPA Total | 67 |
| Ramona CPA Total | 636 |
| San Dieguito CPA Total | 335 |
| Spring Valley CPA Total | 53 |
| Sweetwater CPA Total | 75 |
| Valle De Oro CPA Total | 112 |
| Valley Center CPA Total | 502 |
| **Countywide Total** | **10,131** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.4-4. Total Impacts to Riparian Vegetation Communities

| Vegetation Community Impacted | Total Acres Impacted |
|---|---|
| Southern Coast Live Oak Riparian Forest | 3,085 |
| Southern Cottonwood-willow Riparian Forest | 1,206 |
| Southern Riparian Scrub | 965 |
| Mesquite Bosque | 613 |
| Southern Sycamore-alder Riparian Woodland | 595 |
| Freshwater | 420 |
| Southern Willow Scrub | 396 |
| Alkali Seep | 340 |
| Southern Riparian Forest | 337 |
| Non-Vegetated Channel, Floodway, Lakeshore Fringe | 292 |
| Desert Dry Wash Woodland | 259 |
| Disturbed Wetland | 60 |
| Colorado Desert Wash Scrub | 212 |
| Wet Montane Meadow | 194 |
| Alkali Playa Community | 185 |
| Mule Fat Scrub | 170 |
| Freshwater Seep | 152 |
| Desert Sink Scrub | 126 |
| Freshwater Marsh | 120 |
| Sonoran Wash Scrub | 119 |
| Alkali Marsh | 47 |
| Meadow and Seep | 46 |
| White Alder Riparian Forest | 34 |
| Montane Meadow | 30 |
| Dry Montane Meadows | 29 |
| Tamarisk Scrub | 29 |
| Riparian Woodlands | 22 |
| Riparian Forests | 13 |
| Vernal Pool | 12 |
| Open Water | 11 |
| Southern Arroyo Willow Riparian Forest | 5 |
| Alkali Meadows and Seeps | 3 |
| Riparian and Bottomland Habitat | 3 |
| Estuarine | 1 |
| **Countywide Total** | **10,131** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.4-5. Natural Vegetation Communities Potentially Containing Federally Protected Wetlands

| Habitat Community |
|---|
| Open Water |
| Freshwater |
| Meadow and Seep |
| Montane Meadow |
| Wet Montane Meadow |
| Dry Montane Meadows |
| Alkali Meadows and Seeps |
| Alkali Seep |
| Freshwater Seep |
| Alkali Marsh |
| Freshwater Marsh |
| Riparian and Bottomland Habitat |
| Riparian Forests |
| Southern Riparian Forest |
| Southern Coast Live Oak Riparian Forest |
| Southern Arroyo Willow Riparian Forest |
| Southern Cottonwood-willow Riparian Forest |
| White Alder Riparian Forest |
| Sonoran Cottonwood-willow Riparian Forest |
| Mesquite Bosque |
| Riparian Woodlands |
| Desert Dry Wash Woodland |
| Southern Sycamore-alder Riparian Woodland |
| Southern Riparian Scrub |
| Mule Fat Scrub |
| Southern Willow Scrub |
| Great Valley Willow Scrub |

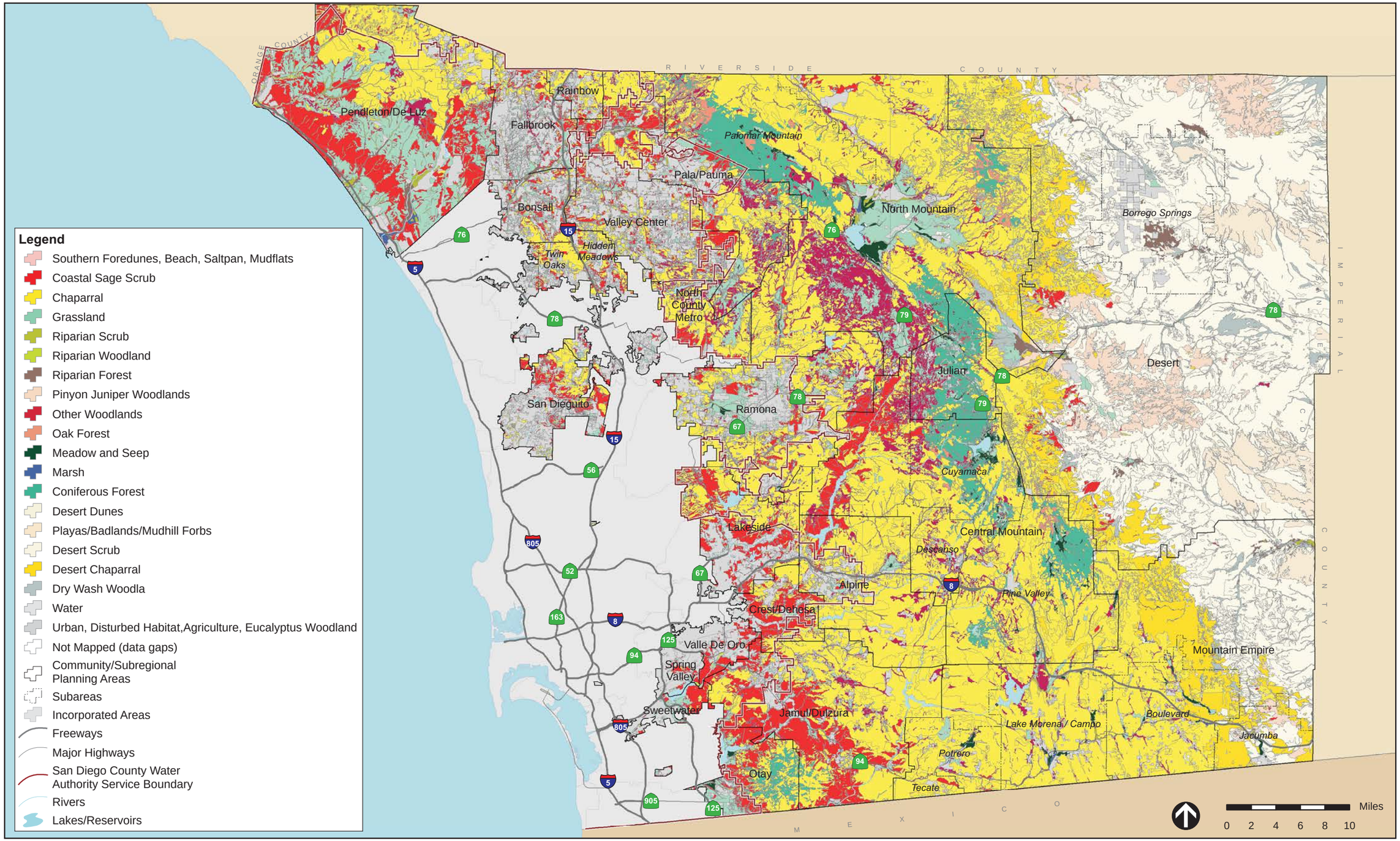
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.4-6. Potential Impacts to Federally Protected Wetlands by CPA or Subregion

| CPA or Subregion | Total Impacts (Acres) |
|---|---|
| Alpine Total | 124 |
| Bonsall Total | 87 |
| Central Mountain - Cuyamaca Total | 3 |
| Central Mountain - Descanso Total | 10 |
| Central Mountain - Pine Valley Total | 15 |
| Central Mountain - Remainder Total | 3 |
| Central Mountain Total | 31 |
| County Islands Total | 1 |
| Crest-Dehesa Total | 88 |
| Desert Subregion - Borrego Springs | 18 |
| Desert Subregion - Remainder | 14 |
| Desert Subregion | 32 |
| Fallbrook Total | 204 |
| Jamul-Dulzura Total | 174 |
| Julian Total | 23 |
| Lakeside Total | 116 |
| Mountain Empire - Boulevard Total | 11 |
| Mountain Empire - Jacumba Total | 31 |
| Mountain Empire - Lake Morena/Campo Total | 23 |
| Mountain Empire - Potrero Total | 15 |
| Mountain Empire - Tecate Total | <1 |
| Mountain Empire - Remainder Total | 6 |
| Mountain Empire Total | 86 |
| North County Metro - Hidden Meadows Total | 26 |
| North County Metro - Twin Oaks Total | 30 |
| North County Metro - Remainder Total | 133 |
| North County Metro Total | 188 |
| North Mountain - Palomar Mountain Total | 13 |
| North Mountain - Remainder Total | 116 |
| North Mountain Total | 129 |
| Otay Total | 13 |
| Pala/Pauma Total | 52 |
| Pendleton/De Luz Total | 44 |
| Rainbow Total | 7 |
| Ramona Total | 180 |
| San Dieguito Total | 75 |
| Spring Valley Total | 27 |
| Sweetwater Total | 16 |
| Valle De Oro Total | 11 |
| Valley Center Total | 133 |
| **Countywide Total** | **1,841** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

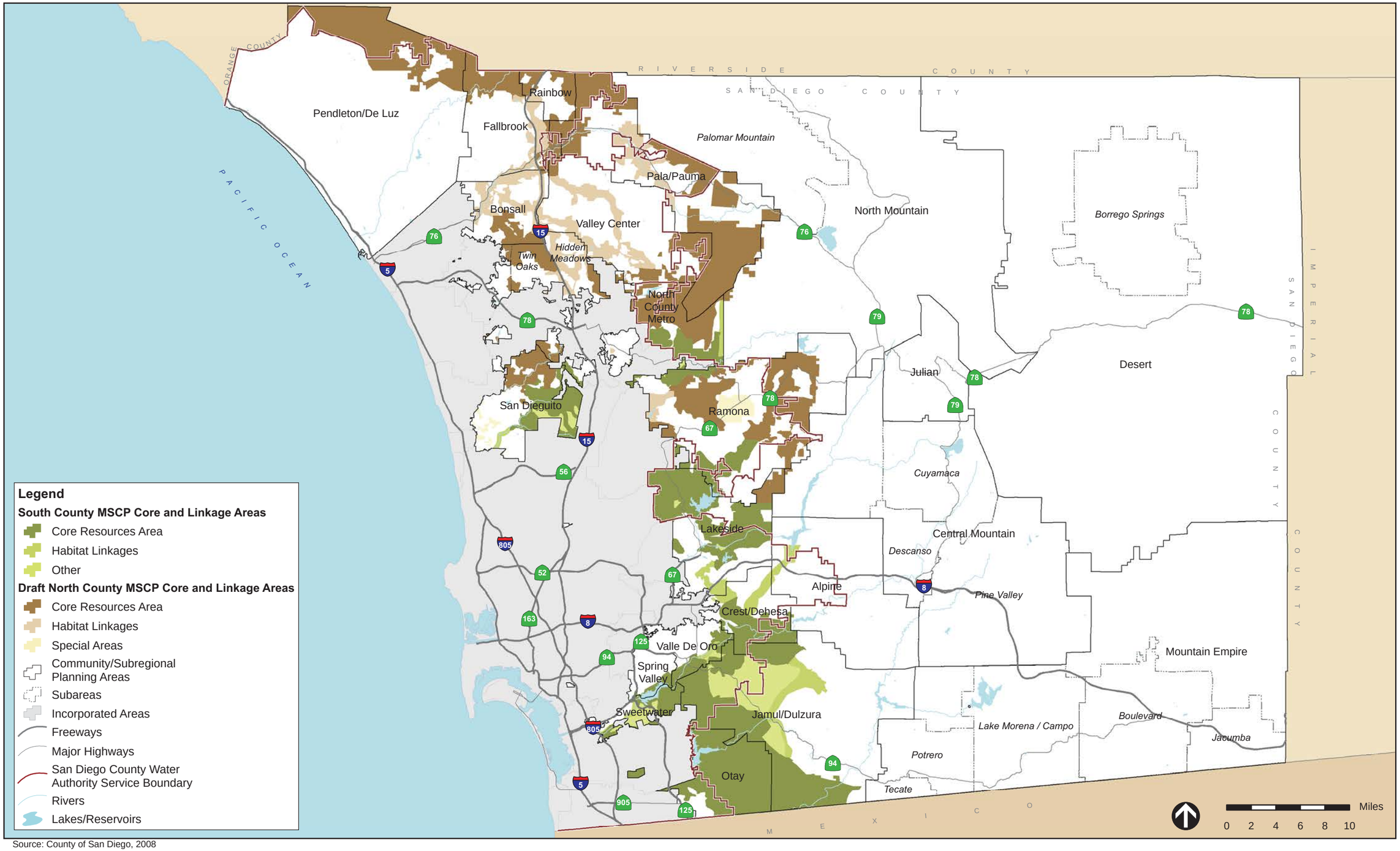
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Source: County of San Diego, 2008

## AGGREGATED VEGETATION MAP OF SAN DIEGO COUNTY

## FIGURE 2.4-1




Source: County of San Diego, 2008

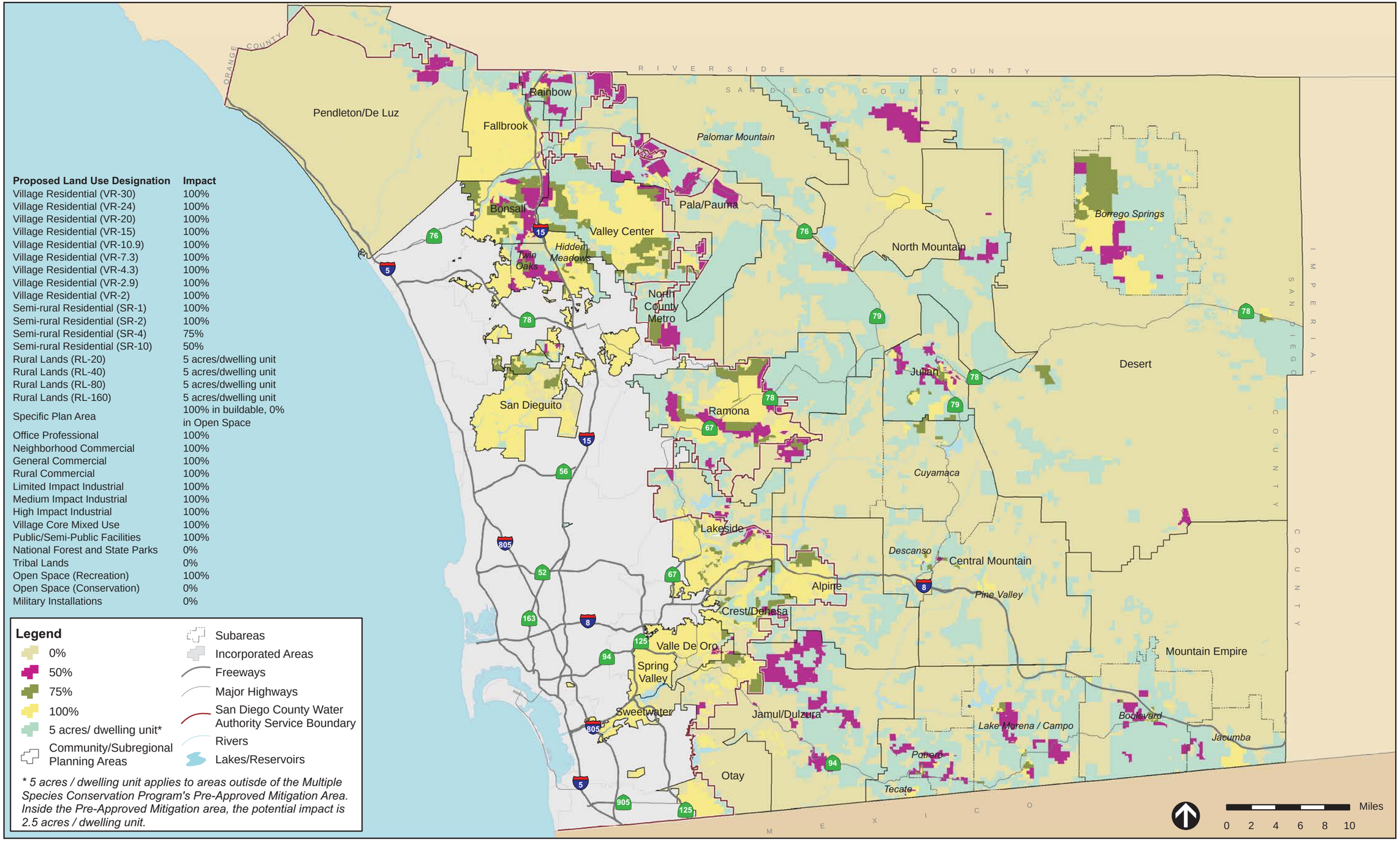
**ADOPTED AND DRAFT MSCP CORE AND LINKAGE AREAS** **FIGURE 2.4-2**

| Proposed Land Use Designation | Impact |
|---|---|
| Village Residential (VR-30) | 100% |
| Village Residential (VR-24) | 100% |
| Village Residential (VR-20) | 100% |
| Village Residential (VR-15) | 100% |
| Village Residential (VR-10.9) | 100% |
| Village Residential (VR-7.3) | 100% |
| Village Residential (VR-4.3) | 100% |
| Village Residential (VR-2.9) | 100% |
| Village Residential (VR-2) | 100% |
| Semi-rural Residential (SR-1) | 100% |
| Semi-rural Residential (SR-2) | 100% |
| Semi-rural Residential (SR-4) | 75% |
| Semi-rural Residential (SR-10) | 50% |
| Rural Lands (RL-20) | 5 acres/dwelling unit |
| Rural Lands (RL-40) | 5 acres/dwelling unit |
| Rural Lands (RL-80) | 5 acres/dwelling unit |
| Rural Lands (RL-160) | 5 acres/dwelling unit |
| Specific Plan Area | 100% in buildable, 0% in Open Space |
| Office Professional | 100% |
| Neighborhood Commercial | 100% |
| General Commercial | 100% |
| Rural Commercial | 100% |
| Limited Impact Industrial | 100% |
| Medium Impact Industrial | 100% |
| High Impact Industrial | 100% |
| Village Core Mixed Use | 100% |
| Public/Semi-Public Facilities | 100% |
| National Forest and State Parks | 0% |
| Tribal Lands | 0% |
| Open Space (Recreation) | 100% |
| Open Space (Conservation) | 0% |
| Military Installations | 0% |

**Legend**

- 0%
- 50%
- 75%
- 100%
- 5 acres/ dwelling unit*
- Community/Subregional Planning Areas
- Subareas
- Incorporated Areas
- Freeways
- Major Highways
- San Diego County Water Authority Service Boundary
- Rivers
- Lakes/Reservoirs

** 5 acres / dwelling unit applies to areas outisde of the Multiple Species Conservation Program's Pre-Approved Mitigation Area. Inside the Pre-Approved Mitigation area, the potential impact is 2.5 acres / dwelling unit.*




Source: County of San Diego, 2008

## ESTIMATED VEGETATION IMPACT

## FIGURE 2.4-3

# 2.5 Cultural and Paleontological Resources

This section of the EIR describes the existing cultural and paleontological resources in San Diego County. Cultural resources include both archaeological and historic sites, buildings, structures, objects and human remains. Paleontological resources include the remains and/or traces of prehistoric life (exclusive of human remains, artifacts or features), including the localities where fossils were collected and the sedimentary rock formations in which they were formed. This section evaluates existing cultural and paleontological resources, analyzes the potential impacts that may occur under the proposed General Plan Update, recommends mitigation measures to reduce or avoid impacts to these resources and examines levels of significance after mitigation. This section is based on the review of the Conservation and Open Space Background Report (DPLU 2007b), Guidelines for Determining Significance, Cultural Resources (DPLU 2007i), and Guidelines for Determining Significance, Paleontological Resources (DPLU 2009d).

A summary of the cultural and paleontological resource impacts identified in Section 2.5.3 is provided below.

**Cultural and Paleontological Resources Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Historical Resources | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Archaeological Resources | Potentially Significant | Potentially Significant | Less Than Significant |
| 3 | Paleontological Resources | Potentially Significant | Potentially Significant | Less Than Significant |
| 4 | Human Remains | Potentially Significant | Potentially Significant | Less Than Significant |

## 2.5.1 Existing Conditions

Cultural resources are found throughout the County and are reminders of the County's prehistoric and historic past. The cultural environment consists of the remains of prehistoric and historic human activities. San Diego County has more than 27,000 recorded sites (19,400 archaeological recorded sites and approximately 8,000 other cultural resources) as of the date of this report and this number continues to grow. The following discussion provides background information as well as an inventory of the essential components that make up the County's cultural environment.

Archaeological and historic resources are the remains left by ancestral people who made and used them. These resources can provide clues to prehistoric and historic human behaviors, and provide scientific, religious and other valuable educational information about the cultural past. It is the cultural past that has helped shape the present community and that will continue to create the future. Resources include traditional cultural places such as gathering areas, landmarks, significant historic buildings and ethnographic locations, as well as physical artifacts. Cultural resources are found throughout the County, are irreplaceable, and are therefore considered vital to the general welfare of all County residents.

Paleontological resources are found in sedimentary strata of the County, which primarily underlies the coastal plain, the desert and some mountain valleys. The prehistoric life forms preserved in the sediment in these areas provide insight to the environment that existed in the County during various prehistoric time periods. The defining character of paleontological resources is their geologic age. Fossils or fossil deposits are generally regarded as being older than 10,000 years, marking the end of the late Pleistocene and the beginning of the Holocene. Refer to Figure 2.5-1 for the geologic time scale. The strata underlying areas of the County record portions of the past 450 million years of Earth's history.

## *2.5.1.1 Cultural Resources*

Cultural resources can be identified and evaluated based on standard criteria established by the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), CEQA and the San Diego County Local Register of Historical Resources. The integrity of the resource, its attributes and location are also key factors in establishing its significance. Resource significance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture that possess a high degree of integrity.

Cultural resources, as defined in this document, consist of the remains of prehistoric and historic human behaviors and include both archaeological and historical resources. Archaeological resources include artifacts and features found on both the surface or under the surface and include both prehistoric and historic time periods. Historic resources refer to the built environment 50 years or older including buildings such as homes, barns, churches, factories; or structures such as mines, flumes, roads, bridges, dams, and tunnels.

**Archaeological Resources**

**San Diego County Cultural Background**

Archaeological evidence reveals that San Diego County has a long cultural history beginning approximately 10,000 years ago. The following cultural background discusses the characteristics of each cultural period of prehistory and history. The information that follows is reproduced with the permission of the author, Dennis Gallegos (Gallegos 2008).

***Pre-Contact Background***

The body of current research of Native American (pre-contact) occupation in San Diego County recognizes the existence of at least two major cultural traditions, discussed here as Early Period/Archaic (prehistory) and Late Period (history), based upon general economic trends and material culture, as shown in Table 2.5-1. Within San Diego County, the Early Period/Archaic includes the period from 10,000 to 1,300 years ago, while the Late Period is from 1,300 years ago to historic Spanish contact (contact). The Post-contact/Historic Period covers the time from Spanish contact to present.

Terminology used for the past 10,000-year history of San Diego County includes a mixture of ideas of ordering archaeological sites using terms for peoples, collections of artifacts, and temporal time frames. The first ordering was by Malcolm Rogers who used the terms: Shell-Midden people, Scraper-Maker culture (scraper-makers), and Yuman. He later revised his

chronology to use the terms San Dieguito (scraper-maker), La Jolla culture (shell-midden people) and Yuman. Claude Warren characterized the San Dieguito radition as including a wide range of scraper types made on side-struck flakes and finished by well-controlled percussion flaking, leaf-shaped knives or large points of several varieties, leafshaped, lanceolate and slightly shouldered points in small number. Chipped stone crescents, often eccentric in form, hammerstones and flaked tools are few in number. Milling stones and manos were not present. Warren's revision to Rogers' La Jolla culture, called the Encinitas Tradition, identifies the majority of flaked stone tools being percussion flaked and made from local macrocrystalline rock and a large percentage of the tool assemblage composed of chopping, scraping and cutting tools and hammerstones. Projectile points are rare and rather large, suggesting the use of darts, rather than bow and arrow. Ground stone items include large numbers of manos and milling stones usually shaped through use, and occasional items such as doughnut stones, discs and cogstone. Bone tools are rare but include awls, antler flakers, and beads. Shell items are also limited, but include beads and pendants. Basketry is represented. Loosely flexed burials are found throughout the area. Warren has more recently updated his chronology and for the San Dieguito Tradition (initial occupation) has since included milling tools and a wider range of tools and food sources, and now discusses the potential of transitional and intermediate stages of occupation to cover the past 10,000 years of Native American occupation in San Diego County. Early Man in San Diego County was discussed by George Carter in the 1950s; however, little to no evidence of Pleistocene human occupation supports this hypothesis.

### *Early Period/Archaic*

The Early Period/Archaic includes the San Dieguito, La Jolla and Pauma complexes, which are poorly defined, as are the interrelationships between contemporaneous inland, desert, and coastal assemblages. Initially believed to represent big game hunters, the San Dieguito people are better typified as a hunting and gathering society. These people had a relatively diverse and non-specialized economy wherein relatively mobile bands accessed and used a wide range of plant, animal, and lithic (stone) resources. Movement of early groups from the California desert may have been spurred by the gradual desiccation of the vast pluvial lake system that dominated inland basins and valleys during the early to middle Holocene. This hypothesis is supported by the similarity between Great Basin assemblages and those of Early Holocene Archaic sites in San Diego County. Several researchers recognized the regional similarity of artifacts and grouped these contemporaneous complexes under the nomenclature of either the Western Pluvial Lakes Tradition or the Western Lithic Co-tradition.

Early migrations into San Diego County may have come from the north. Recent work on the northern Channel Islands near Santa Barbara demonstrates island occupation dating back to the terminal Pleistocene, roughly 13,000 years ago. At this early date, a fully maritime-adapted population exploited shellfish and used seaworthy boats to ply channel waters. Fish were captured using bone gorges by 10,000 years ago. Such early dates are lacking for the adjacent Santa Barbara mainland, presumably because the rise in sea level brought about by post-Pleistocene deglaciation would have inundated sites along the late Pleistocene/early Holocene coastlines. At this time in San Diego County, the shoreline stood 2 to 6 kilometers (km) farther seaward than today's coast. Therefore, any evidence for early coastal adaptation coeval with that of the northern Channel Islands may have been destroyed within this two to six km paleo-shoreline area by sea encroachment thousands of years ago.

The origin of coastal populations in San Diego County and subsequent interaction between these populations and Great Basin/desert groups is a subject of some debate. Whether they

migrated into San Diego County from the coast or inland, the first occupants immediately exploited coastal and inland resources of plants, animals, shellfish, and fish.

The development of a generalized economic system indicates that the initial occupation, referred to here as San Dieguito, can be placed within the general Archaic pattern. Archaic cultures occurred within North America at slightly different times in different areas, but are generally correlated with local economic specialization growing out of the earlier Paleo-Indian Tradition. Archaic cultures are often represented by more diverse artifact assemblages and more complex regional variation than Paleo-Indian traditions. This is generally thought to have resulted from the gradual shift away from a herd-based hunting focus to a more diverse and area-specific economy.

The earliest known sites are found near coastal lagoons and river valleys of San Diego County. These sites are the Harris Site (CA-SDI-149), Agua Hedionda sites (CA-SDI-210/UCLJ-M-15 and CA-SDI-10695), Rancho Park North (CA-SDI-4392/SDM-W-49), and Remington Hills (CA-SDI-11069) dating from 9,500 to 8,000 years ago. The northern San Diego County coastal lagoons supported large populations, circa 6,000 years ago, as shown by the numerous radiocarbon-dated sites adjacent to these lagoons. After 3,000 to roughly 1,500 years ago, there are fewer archaeological sites in northern San Diego County. This reduction in number of archaeological sites can be attributed to the slowing of the rise in sea level and concomitant siltation of coastal lagoons causing the depletion of shellfish and other lagoon resources. Archaeological sites dated to circa 2,000 years ago are found in the Camp Pendleton area, wherein shellfish (*Donax gouldii*) were collected from open-shore sandy beach habitat and bay species were still abundant in San Diego Bay, and present but not as dominant in other lagoons. Batiquitos Lagoon and perhaps other lagoons reopened circa 1,500 years ago, therein producing shellfish, but neither with the quantity, size or variety of shellfish as documented for the early to middle Holocene.

The La Jolla and Pauma Complexes, which are referred to as following the San Dieguito Complex, may simply represent seasonal or geographic variations of the somewhat older and more general San Dieguito Complex. Inland Early/Archaic Period occupation sites have been reported in coastal settings, transverse valleys, sheltered canyons, benches and knolls. In northern San Diego County, non-coastal sites were termed “Pauma Complex” by True in 1958 and 1980, and were defined as containing a predominance of grinding implements (manos and metates), having a general lack of shellfish remains, a greater tool variety, and expressing an emphasis on both gathering and hunting.

Early Period/Archaic sites from 10,000 to 1,300 years ago within San Diego County include a range of sites that include coastal and inland valley habitation sites, inland hunting and milling camps, and quarry sites, usually in association with fine-grain metavolcanic material. Material culture assemblages during this long period are remarkably similar in many respects. These deposits may well represent a process of relative terrestrial economic stability and presumably slow cultural change. Though various cultural traits developed or disappeared during the long span of 10,000 to 1,300 years ago, there is a clear pattern of cultural continuity during this period.

### *Late Period*

During the Late Period (circa 1,300 to historic contact) a material culture pattern similar to that of historic Native Americans first became apparent in the archaeological record. The economic

pattern during this period appears to be one of more intensive and efficient exploitation of local resources. The prosperity of these highly refined economic patterns is well evidenced by the numerous Kumeyaay/Diegueño and Luiseño habitation sites scattered throughout San Diego County. This increase in Late Period site density probably reflects both better preservation of the more recent archaeological record and a gradual population increase within the region. Artifacts and cultural patterns reflecting this Late Period pattern include small projectile points, pottery, the establishment of permanent or semi-permanent seasonal village sites, a proliferation of acorn milling sites in the uplands, the presence of obsidian from the Imperial Valley source Obsidian Butte, and interment by cremation.

Luiseño occupation in northern San Diego County during the late Holocene has been viewed as an occupation that migrated from the desert to the coast, an incursion called "the Shoshonean Wedge." Late Period culture patterns were shared with groups along the northern and eastern periphery of San Diego County, incorporating many elements of their neighbors' culture into their own cultures. This transference and melding of cultural traits between neighboring groups makes positive association of archaeological deposits with particular ethnographically known cultures difficult. This is particularly true of the groups within San Diego County. Although significant differences exist between Luiseño and Kumeyaay/Diegueño cultures (including linguistic stock), the long interaction of these groups during the Late Period resulted in the exchange of many social patterns. Archaeologists must rely heavily on ethnographic accounts of group boundaries as recorded during the historic period, although it is not known how long these boundaries had been in place or the validity of these boundaries as presently reported.

In 1925, Kroeber placed the Kumeyaay and Luiseño boundary between Agua Hedionda and Batiquitos Lagoon. According to Luomala in 1978, the territory of the Ipai extended along the coast from the San Luis Rey River in the north to San Diego Bay in the south with San Felipe Creek marking the eastern boundary. The territory of the Tipai, the southern group, extended south from San Diego Bay to include parts of Mexico and the southern mountains. In 1993, Florence Shipek identified the northern and southern Kumeyaay/Diegueño tribal boundary as:

> "In 1769, the Kumeyaay national territory started at the coast approximately 100 miles south of the Mexican border (below Santo Tomas), thence north to the coast at the drainage divide south of the San Luis Rey River including its tributaries. Using the U.S. Geological Survey (USGS) topographic maps, the boundary with the Luiseño then follows that divide inland. The boundary continues on the divide separating Valley Center from Escondido and then up along Bear Ridge to the 2240 contour line and then north across the divide between Valley Center and Woods Valley up to the 1880-foot peak, then curving around east along the divide above Woods Valley."

### *Archaeological Sites*

Culturally significant resources have been found throughout the unincorporated County. The location of many of these sites is known but kept confidential in order to protect these resources from desecration or theft. Cultural resources are often identified during the environmental review process (including CEQA review) for projects within the County. If these resources are determined to be significant, steps for their protection will be put into place.

### Significant Prehistoric Site

The C.W. Harris Site Archaeological District is one of the most significant archaeological sites in the western U.S. and has been determined eligible for listing on the National Register of Historic Places (NRHP). The Harris site is located in the San Dieguito River Valley and documents over 9,000 years of occupation in the San Diego region. Almost 70 years of study at this site has provided important information about the prehistory of the western U.S., and pushed back the time of occupation in California by thousands of years. Artifacts from the Harris Site date back to the Late Prehistoric, La Jolla, and San Dieguito periods of San Diego County. The Harris Site differs from other archaeological sites in the County because the stratigraphy of the site was preserved. Artifacts are usually found in horizontal layers called strata (several parallel layers arranged one on top of another) which in the past have been disturbed by burrowing animals, floods, and agricultural activity. The preservation of strata at the Harris Site allowed archaeologists to reach a significant conclusion about the sequence of cultural history in the region. Before excavation began at the Harris Site many archaeologists believed that the La Jolla period was older than the San Dieguito period.

## Historic Resources

### Historic Resources Background

The history of San Diego County is commonly presented in terms of Spanish, Mexican, and American political domination. A discussion of historic land use and occupation under periods of political rule by people of European and Mexican origin is justified on the basis of characteristics associated with each period, when economic, political, and social activities were influenced by the prevailing laws and customs. Certain themes are common to all periods, such as the development of transportation, settlement, and agriculture. Robinson (1969) provides a comprehensive account of public and privately owned land in California, with a discussion of laws, activities and events related to the development of the State.

#### *Spanish Period (1769-1821)*

The Spanish Period represents exploration, the establishment of the San Diego Presidio and missions at San Diego (1769) and San Luis Rey (1798), and asistencias (chapels) to the San Diego Mission at Santa Ysabel (1818) and to the San Luis Rey Mission at Pala (1816). Horses, cattle, agricultural foods, weed seeds, and a new architectural style and method of building construction were also introduced. Spanish influence continued after 1821 when California became a part of Mexico. For a period of time under Mexican rule, the missions continued to operate as in the past, and laws governing the distribution of land were also retained.

#### *Mexican Period (1821-1848)*

The Mexican Period includes the initial retention of Spanish laws and practices until shortly before secularization of the missions in 1834, a decade after the end of Spanish rule. Although several grants of land were made prior to 1834, vast tracts of land were dispersed through land grants offered after secularization. Cattle ranching prevailed over agricultural activities, and the development of the hide and tallow trade increased during the early part of this period. The Pueblo of San Diego was established and transportation routes were expanded. The Mexican Period ended in 1848 as a result of the Mexican-American War.

### *American Period (1848 to Present)*

The American Period began when Mexico ceded California to the U.S. under the Treaty of Guadalupe Hidalgo. Terms of the treaty brought about the creation of the Lands Commission, in response to the Homestead Act of 1851 that was adopted as a means of validating and settling land ownership claims throughout the State. Few Mexican ranchos remained intact because of legal costs and the difficulty of producing sufficient evidence to prove title claims. Much of the land that once constituted rancho holdings became available for settlement by immigrants to California. The influx of people to California and the San Diego region resulted from several factors including the discovery of gold in the State, the conclusion of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The growth and decline of towns occurred in response to an increased population and the economic boom and bust cycle in the late 1800s.

### *Native American Perspective*

In addition to the point of view discussed above, the County acknowledges that other perspectives exist to explain the presence of Native Americans in the region. The Native American perspective is that they have been here from the beginning as described by their creation stories. Similarly, they do not necessarily agree with the distinction that is made between different archaeological cultures or periods, such as “La Jolla” and “San Dieguito.” They instead believe that there is a continuum of ancestry, from the first people to the present Native American populations of San Diego. To acknowledge this perspective, consultation with affected Native American communities can be beneficial to fully understand the impact to cultural resources. The consultation is typically administered pursuant to Senate Bill (SB) 18, described below in Section 2.5.2, Regulatory Framework. Some anthropologists and archaeologist concur with the Native American perspective of the continuity of descent from the earliest County inhabitants, and recognize the possibility that the descendents of the earlier cultures in the County and the later cultures resulted from the absorption and intermarriage with the earlier peoples.

## Significant Historic Resources Sites

### *Historic Resources Surveys*

Several surveys have been performed to identify the resources found in some of the more urbanized communities in the County. These include:

- Ramona Historic Resources Inventory (conducted in September 1991)
- Sweetwater Valley Historic Resources Inventory (conducted in September 1990)
- Fallbrook Historic Resources Inventory (conducted in September 1991)
- Lakeside Historic Survey (conducted in 2001)
- Julian Historic Survey (conducted in September 2008)

These surveys provide general information on the potential significance of the resources found within the respective communities. This information can be utilized to determine when further detailed study is required and to protect resources at the site planning level. Over 400 historic sites have been identified throughout unincorporated San Diego County. Figure 2.5-2 identifies the location of these resources. As shown in this figure, historic resources in San Diego are

most densely concentrated in the communities of Fallbrook, San Dieguito, Ramona, and Spring Valley.

Historic resources also tend to be located along major roadways, including SR-94, I-8, SR-78, and SR-76. Table 2.5-2 provides a partial list of significant historical sites in unincorporated San Diego County, and selected sites are described in detail below. Table 2.5-2 represents sites that have been designated by the NRHP, are listed as a National or State Historic Landmark, or are included in the San Diego County Historic Landmark Listing. Additional historic sites have been identified as historic and may be eligible for designation, but have not yet been listed. Three designated historic districts exist in unincorporated County, the Camp Lockett in Campo, the Mataguay Historic District, and the Glen Abbey Memorial Park in Bonita. The Julian Historic District is currently under evaluation for listing as a State and County Landmark and is shown on Figure 2.5-2. Other districts have been identified as historic and may be eligible for designation as a historical district, such as the Ellis Bishop House Historic District in Rancho Santa Fe.

### *Camp Lockett Historic District*

Camp Lockett, located in the Milquatay Valley near Campo in the Mountain Empire CPA, was a World War II Mexican border cavalry post established in 1941. It was named after Colonel James Lockett, who was awarded two Silver Stars for "gallantry in action against insurgent forces" in the Philippine Islands during the Spanish American War. Eventually the camp housed prisoners of war until late in December 1942 when Camp Lockett was placed on standby status for future use as a convalescent center.

Camp Lockett is undoubtedly an important and significant chapter of San Diego's history for many reasons. First, it was used by the cavalry throughout the war to perform important missions, such as patrolling the Southern California border and protecting resources vital to San Diego's war effort. During the months before the U.S. entered the war, the soldiers scouted the mountains and made defensive plans in the event of a full-scale enemy invasion coming through Mexico. And in those first few tense days after Pearl Harbor, the cavalry made sure that the trains and trucks kept moving, the electric relay stations remained operable, and the City's fresh water supplies continued flowing.

Camp Lockett's most interesting legacy is the fact that it was the last horse cavalry base built in the U.S., and that the events played out there between 1941 and 1944 represent the end of a long and distinguished era in American history. Machines had taken over, and there was no longer a need for a cavalry platoon.

### *Guajome County Park*

Guajome County Park, near Bonsall, is home to a historic adobe ranch house built in the 1850s. Originally, the land was owned by two Native Americans who received the 2,200-acre ranch as a land grant from the Mexican governor in 1845. Eventually the land was sold to a Los Angeles merchant, who gave a half-interest in the ranch to his sister-in-law, Ysidora Bandini, as a wedding gift. Her husband, Cave Johnson Couts, was a young Army lieutenant. Couts turned the ranch into the social and cultural center of North County. He held grand fiestas that attracted the social elite from the entire State. The rancho's centerpiece was its adobe home, at 7,000 square feet and 28 rooms. Today the adobe stands as one of the best examples of Anglo-Hispanic architecture and has been designated both a State and National Historic Landmark.

### *Rancho Guejito*

The Rancho, located in the North County Metro CPA, was originally granted by Mexican Governor Manuel Micheltorena to José María Orozco in 1845. Rancho Guejito covers more than 13,000 acres and is significant because it is the only Mexican land grant still existing in its original state. The land was originally proposed as a site for a State park, but now is currently used to raise cattle.

### *Bancroft Rock House*

The Bancroft Rock House located in Spring Valley was built in 1887 by Hubert Howe Bancroft, a well known historian. Between the years of 1882 and 1890, Bancroft published 39 volumes on the history of Alaska, Mexico, the U.S., and portions of Canada, some of which was written in the Rock House. The structure was designed to be fire-safe to protect and store an extensive collection of San Diego County's historical documents. The Ranch House was given the status of California Historic Landmark No. 626 in 1958, and since has become a museum displaying artifacts from Spring Valley.

### *Los Peñasquitos Ranch House*

Los Peñasquitos Ranch House, located in Los Peñasquitos Canyon Preserve, was built in 1823, making it one of the oldest existing structures in the San Diego region. The ranch was originally constructed by Captain Francisco Maria Ruiz, a Commandant of the San Diego Presidio. The area was rich in natural resources which made it ideal not only for Native American habitation, but also for the 19$^{th}$ century settlers. In 1846, Rancho Los Peñasquitos was the first place of rest for General Stephen Watts Kearny and his Army of the West after the historic Battle of San Pasqual.

### *Important Roadways*

**Highway 80.** U.S. Highway 80 spans 2,500 miles through eight states, going from downtown San Diego to Tybee Island, Georgia. Highway 80 is important because it was the first all-weather coast-to-coast route available to automotive travelers. The road, which was once called "The Broadway of America," served as an important route for tourism and commerce, including transportation of military supplies in times of war and agricultural products in times of peace. By 1974, in San Diego and Imperial counties, most of the highway was replaced by Interstate 8. The State Legislature recently made Old Highway 80 an historic route under Assembly Current Resolution No. 123 (Resolution Chapter 104, August 16, 2006).

**Highway 395.** U.S. Highway 395, also known as the "Three Flags Highway," is a 1,305-mile road running through some of the most scenic areas in the western U.S. At one time it stretched 1,490 miles in length, all the way from San Diego Bay near the U.S./Mexico international border to the Canadian border in Washington State. U.S. Highway 395 earned its name as the "Three Flags Highway" because it (almost) touched all three nations. Despite being reduced in 1969 for the improved 1-15, it still maintains its importance as a major north-south route along the eastern Sierra Nevada Mountains.

### *Historic Bridges*

The Caltrans maintains a list of Historically Significant Bridges, including those which are on either the NRHP or eligible to be placed on the National Register. This database has the construction date of the bridges divided by County, some of which are located in the unincorporated County of San Diego. The only bridge in the inventory that is located in the

unincorporated County and eligible for the National Register is the San Luis Rey River Bridge (57 0043Z), located near SR-76 in the Bonsall CPA. However, the Ostrich Creek Bridge in Fallbrook is designated historic on the San Diego County Historic Property Listing.

### *2.5.1.2 Paleontological Resources*

Paleontological resources are the remains and/or traces of prehistoric life (exclusive of human remains, artifacts or features) that include the localities where fossils are collected and the sedimentary rock formations in which they were formed. The defining character of fossils is their geologic age. Fossils or fossil deposits are generally regarded as being older than 10,000 years, marking the end of the late Pleistocene and the beginning of the Holocene. Refer to Figure 2.5-1 for the geologic time scale.

Fossils result from the preservation of organic remains, which requires a unique combination of physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved, while soft tissues not intimately connected with the skeletal parts are least likely to be preserved. For this reason, the fossil record contains a biased selection not only of types of organisms but also of parts of organisms. For example, two groups of abundant organisms in shallow marine environments are bivalve and gastropod mollusks and polychaete worms. However, whereas mollusks, with their calcium carbonate shells, are the dominant fossils in many marine formations, the polychaete worms are barely recognized in fossil deposits. The same can be said of vertebrate fossils. Much of the paleontological knowledge about mammals is based on teeth alone, the teeth being generally more durable than other parts of the skeleton. The best preserved fossils are of those organisms that lived within a sedimentary depositional environment or were buried by sediment shortly after death, thus partially insulating them from destructive chemical and physical processes.

Fossil remains commonly include marine shells, bones and teeth of fish, reptiles, and mammals, leaf assemblages, and petrified wood. Fossil traces include internal and external molds (impressions) and casts. Trace fossils include evidence of past activities of fossil organisms, such as footprints and trackways, burrows and boreholes, coprolites, nests and (packrat) middens. Fossils, fossil traces, and trace fossils are found in the sedimentary rocks and unconsolidated sediments of natural ancient environments such as oceans, rivers, lakes, deltas, beaches, and lagoons.

The majority of San Diego County fossils are represented by shells and/or tests (hard coverings) of marine invertebrates (corals, mollusks, crustaceans, and echinoderms). However, important skeletal remains of terrestrial vertebrates (reptiles, birds, and mammals) characterize certain geologic rock units and time intervals. The local terrestrial fossil record also consists of remains and impressions of plants including leaf assemblages and petrified wood.

A geologic formation is a body of rock identified by its lithic characteristics (e.g., grain size, texture, color, mineral content) and stratigraphic position. Formations are mapped at the Earth's surface or traced in the subsurface and are formally named and described in the geologic literature. The fossil content may also be a characteristic of a formation. There is a direct relationship between fossils and the geologic formations within which they are enclosed; therefore, with sufficient knowledge of the geology and stratigraphy of a particular area and the paleontological resource potential, it is possible to reasonably predict where fossils might or might not be found. This is the case in San Diego County where a general overview of the

geologic setting provides a basis for reasonably predicting the location of paleontological resources.

San Diego County is underlain by a number of distinct geologic rock units (formations) that record portions of the past 450 million years of the Earth's history. In general, time periods late in geologic history are better represented than periods further back in time. In San Diego County, the geologic record is most complete for parts of the past 75 million years, represented by the Cretaceous Period, the Eocene, Oligocene, and Pliocene Epochs of the Tertiary Period, and the Pleistocene Epoch of the Quaternary Period (see Figure 2.5-1).

## Geomorphic Regions and Occurrence of Fossils in San Diego County

A geomorphic province and its regions establish areas that contain particular assemblages of landforms, geology, and fossils. San Diego County lies within the Peninsular Ranges Province, which is divided into three regions: the Coastal Plain, the Peninsular Range, and the Salton Trough (the desert). This section describes the characteristics of each of these regions and the occurrence of fossils in each region. Refer to Section 2.6, Geology and Soils, for additional discussion regarding geologic units.

The fossil record preserved in the rocks of San Diego County is unique in many respects and consists of important fossils and fossil assemblages that are either poorly represented or altogether unknown in other areas of California and North America.

### Coastal Plain Region

The Coastal Plain Region is bounded on the west by the Pacific Ocean and on the east by the western edge of the foothills, and lies mostly within the boundaries of incorporated cities. The following communities within the unincorporated County are all or partially located within the Coastal Plain Region:

- Pendleton/De Luz
- Valle de Oro
- County Islands
- Spring Valley
- North County Metropolitan
- Sweetwater
- San Dieguito
- Otay (west)
- Lakeside (west)

The Coastal Plain Region is an area characterized by interbedded marine and non-marine sedimentary rock units deposited over the last 75 million years. The sedimentary rocks contain paleontological resources and overlie a buried topography of plutonic crystalline rocks (igneous rock that cooled deep underground) composed of granite, granodiorite, etc. Plutonic crystalline rocks are igneous rocks that cooled deep underground. They were subsequently lifted up by geologic processes to form the County's mountains. Many of the level surfaces in the coastal areas, including most of the mesa tops and coastal benches, are elevated marine terraces, and these, as well as the broad, level floodplains of river valleys, are characteristic features of the Coastal Plain Region. Many sedimentary rock units containing paleontological resources are within the Coastal Plain Region, including:

- Unnamed Quaternary River Terrace deposits representing the sediments of ancient river courses and sometimes containing important vertebrate remains;

- Marine terrace deposits of the Bay Point Formation and the Lindavista Formation that have produced large and diverse assemblages of marine invertebrate fossils locally along the coast and inland to elevations of approximately 300 feet;

- Marine deposits of the San Diego Formation, which have produced one of the largest and most diverse assemblages of Pliocene marine fossils in the world;

- Fluvial sedimentary rocks of the Otay Formation, with so many well preserved remains that it is now considered the richest source of Oligocene terrestrial vertebrates in California;

- Fluvial sedimentary rocks of the Friars Formation and Member C of the Santiago Formation, which have produced the best preserved assemblages of middle and late Eocene terrestrial mammals in California; and

- Other formations, including the Capistrano, San Mateo, San Onofre Breccia, Monterey, Sweetwater, Mission Valley, Stadium Conglomerate, Ardath Shale, Torrey Sandstone, Delmar, Point Loma, and Lusardi Formations.

Fossils known from the Coastal Plain Region are widespread and locally abundant. Any of these formations that occur within the unincorporated County could contain paleontological resources. Table 2.5-3 summarizes fossil discoveries in the Coastal Plain Region.

**Peninsular Ranges Region**

The Peninsular Ranges Region covers most of San Diego County between the foothills of Cowles Mountain and Bernardo Mountain on the west and the steep escarpments of In-Ko-Pah Gorge and Palomar Mountain on the east. All of the Peninsular Ranges Region is located in the unincorporated County, except some areas along the western edge. The following community and subregional planning areas of the unincorporated County are all or partly located within the Peninsular Ranges Region:

- Fallbrook
- Lakeside
- Rainbow
- Pala/Pauma
- Alpine
- Bonsall
- Central Mountain
- Valley Center
- Otay (east)
- North County Metropolitan (east)
- Jamul/Dulzura
- North Mountain
- Mountain Empire
- Ramona
- Julian
- Crest/Dehesa/Harbison Canyon/Granite Hills

The Peninsular Ranges Region is primarily underlain by plutonic igneous rocks that formed from the cooling of molten magmas deep within the earth's crust. However, some sedimentary rock units have formed in Quaternary alluvial and alluvial fan deposits in many of the mountain valleys of the region and some of the more southern mountain valleys contain Quaternary peat deposits. Formations containing paleontological resources in the Peninsular Ranges Region of unincorporated San Diego County include:

- Sedimentary rock (sandstone, siltstone and conglomerate), including the Pauba Formation and the Temecula Arkose, that have filled the Warner Basin with up to 1,000 feet of upper Pliocene and lower to upper Pleistocene sediments and have yielded diverse assemblages of vertebrate fossils in southern Riverside County and could contain the same in San Diego County;

- Table Mountain Gravels that have yielded fossil remains of Miocene terrestrial mammals; and

- Jurassic metasedimentary rocks mapped as the Santiago Peak Volcanics that have produced rare, but important marine invertebrate fossils.

Known fossil occurrences in the Peninsular Ranges Region are extremely rare, but provide a glimpse of the potential for future discoveries of significant fossils in this portion of the County. The few fossil discoveries known from the Peninsular Ranges Region occur in areas of steep topography where erosion of sedimentary rocks has produced natural outcrops, such as in Jacumba Valley. In other areas of the Peninsular Ranges Region where sedimentary rocks occur but are not well exposed, such as Warner Valley, future grading activities may likely create artificial exposures with the potential for important fossil discoveries. Table 2.5-4 summarizes fossil discoveries in the Peninsular Ranges Region.

**Salton Trough Region**

San Diego County's eastern desert and Desert Subregional Planning Area lies within the Salton Trough Region. This entire region is located in the unincorporated County. The Salton Trough is the northern landward extension of the proto-Gulf of California, the deepest part of which currently lies beneath the Salton Sea. Dry lake beds, filled with sediments, are notable features of the region.

Sedimentary rock units in the Salton Trough Region that have produced important paleontological resources in San Diego County include, but are not limited to, the following:

- The Ocotillo Conglomerate and the Borrego Formation that have produced primarily Pleistocene mollusk and other invertebrate fossils as well as terrestrial vertebrate fossils;

- Imperial Group, from which a large number of excellently preserved, late Miocene to early Pliocene, subtropical to tropical, shallow water marine invertebrates (corals, mollusks, crustaceans, and echinoderms), have been found;

- The Palm Springs Group consisting of five formations (Arroyo Diablo Formation, Olla Formation, Tapiado Claystone, Hueso Formation, and Canebrake Conglomerate) that is important because its terrestrial vertebrate fossils provide critical information on the evolution and diversification of Pliocene through Pleistocene paleocommunities characteristic of this region's North American Land Mammal Ages;

- Other formations, including the Brawley and Split Mountain Formations, the Canebrake Conglomerate, and the Alverson Volcanics; and

- Later Quaternary alluvium, and older terraces, fanglomerates, and valley-fill alluvium.

In the Salton Trough Region of the County almost all known fossil discoveries have been made in areas with natural outcrops of exposed sedimentary rocks. These exposures result from the combined factors of aridity, limited soil and vegetative cover, and episodic high rates of erosion. The Salton Trough Region is locally underlain by a thick sequence of Miocene, Pliocene, Pleistocene, and Holocene strata. Table 2.5-5 summarizes fossil discoveries in the Salton Trough Region.

## Resource Potential Ratings and Sensitivity of Paleontological Resources

Sensitivity levels are rated for individual geologic formations, as it is the formation that contains the fossil remains. The sensitivity levels are the same as the resource potential ratings. For example, a formation with a high potential for containing important fossils has high sensitivity. Table 2.5-6 lists the formations in the County that are known to contain or have the potential to contain unique paleontological resources. The resource potential ratings and geologic formation sensitivity levels are also described below.

### High

High resource potential and high sensitivity are assigned to geologic formations known to contain paleontological localities with rare, well-preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation, and fossils providing important information about the paleoclimatic, paleobiological and/or evolutionary history (phylogeny) of animal and plant groups. In general, formations with high resource potential are considered to have the highest potential to produce unique invertebrate fossil assemblages or unique vertebrate fossils and are, therefore, highly sensitive.

### Moderate

Moderate resource potential and moderate sensitivity are assigned to geologic formations known to contain paleontological localities. These geologic formations are judged to have a strong, but often unproven, potential for producing unique fossil remains.

### Low

Low resource potential and low sensitivity are assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Low resource potential formations rarely produce fossil remains of scientific importance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to the geologic understanding of the area.

### Marginal

Marginal resource potential and marginal sensitivity are assigned to geologic formations that are composed either of volcaniclastic (derived from volcanic sources) or of metasedimentary rocks, but that nevertheless have a limited probability for producing fossils from certain formations at localized outcrops. Volcaniclastic rock can contain organisms that were fossilized by being covered by ash, dust, mud, or other debris from volcanoes. Sedimentary rocks that have been metamorphosed by heat and/or pressure caused by volcanoes or plutons are called metasedimentary. If the sedimentary rocks had paleontological resources within them, those

resources may have survived the metamorphism and still be identifiable within the metasedimentary rock, but since the probability of this occurring is so limited, these formations are considered marginally sensitive.

**No Potential**

No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore do not have any potential for producing fossil remains. These formations have no paleontological resource potential; therefore, they are not considered to be sensitive resources.

**Resource Potential and Sensitivity of Geologic Formations in Unincorporated San Diego County**

As shown in Figure 2.5-3, most of the unincorporated areas of San Diego County are underlain by geologic formations with no, low, or marginal paleontological resource potential and sensitivity and are therefore unlikely to contain important fossils. Nonetheless, areas of high and moderate sensitivity, which do have the potential to contain unique paleontological resources, are present in Camp Pendleton, the San Dieguito area, Spring Valley, and Otay Mesa in the Coastal Plains Region; Warner Valley and Jacumba Valley in the Peninsular Ranges Region; and the Anza Borrego Desert and Coyote Mountains in the Salton Trough Region.

### *2.5.1.3 Human Remains*

Archaeological investigations within the unincorporated County have unearthed human remains from prior human occupations. Human remains can be considered cultural resources for a number of reasons. Some human remains are evidence of burial places which represent events, customs, or beliefs common to many cultures, locations, or time periods. Other human remains are unique representatives of specific people or events. Cemeteries and burial places traditionally have been regarded as sacred and inviolate, especially by those whose ancestors are buried there. Recently, the concern of Native Americans about appropriate and respectful disposition of burial remains and objects of their descendants has resulted in greater sensitivity toward those for whom a burial place has familial or cultural importance.

In addition to unearthed human remains that may have cultural significance, established cemeteries and burial places may also be considered a cultural resource. Within the unincorporated County, the Ellis Cemetery, Glen Abbey Memorial Park, Fallbrook Masonic Cemetery, Oddfellows Cemetery, and Ramona Nuevo Memory Gardens Cemetery are included on the San Diego County Historic Property Listing. Cemeteries and burial places that qualify for such listing often include town cemeteries and burial grounds whose creation and continuity reflect the broad spectrum of the community's history and culture; family burial plots that contribute to the significance of a farmstead; beautifully designed garden cemeteries that served as places of rest and recreation; graveyards that form an important part of the historic setting for a church or other religious building being nominated; formal cemeteries whose collections of tombs, sculptures, and markers possess artistic and architectural significance; single or grouped gravestones that represent a distinctive folk tradition; graves or graveyards whose survival is a significant or the only reminder of an important person, culture, settlement, or event; and burial

places whose location, grave markers, landscaping, or other physical attributes tell something important about the people who created them (NPS 2008b).

## 2.5.2 Regulatory Framework

Cultural and paleontological resources in the County of San Diego are protected through a number of regulations at the federal, State, and local levels. Below is a listing and brief description of some of the various regulations and standards that relate to cultural and paleontological resources within the County.

### *2.5.2.1 Federal*

**Executive Order 12072 (1978) – Federal Space Management; Jimmy Carter**

Executive Order 12072 requires the consideration of cultural resources of all kinds in the context of urban centers. This order directs agencies to give priority to siting their activities in central business areas. It requires that both the positive and negative cultural effects be considered.

**Historic Sites, Buildings, Objects, and Antiquities Act**

The Historic Sites, Buildings, Objects, and Antiquities Act of 1935 states that it is the national policy to preserve for the public use historic sites, properties, buildings, and objects of national significance. It gives the National Park Services (NPS) broad powers to execute the policy on both federal and non-federal lands. The Act also set up an advisory board to aid the Secretary of the Interior in implementing the Act. The National Natural Landmarks (NNL) Program was established in 1962 to recognize and encourage the conservation of outstanding examples of the country's natural history. NNLs are designated by the Secretary of the Interior, with the owner's concurrence, as being of national significance, defined as being one of the best examples of a biological community or geological feature within a natural region of the U.S.

**National Historic Landmarks Program**

The National Historic Landmarks Program, developed in 1982, identifies and designates National Historic Landmarks, and encourages the long range preservation of nationally significant properties that illustrate or commemorate the history and prehistory of the U.S. These regulations set forth the criteria for establishing national significance and the procedures used by the Department of the Interior for conducting the National Historic Landmarks Program.

**National Historic Preservation Act (NHPA)**

The NHPA was passed in 1966 and set the foundation for much of the more specific legislation that guides cultural resource protection and management in local jurisdictions such as the County of San Diego. The Act established an Advisory Council on Historic Preservation to help implement and monitor it.

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council a reasonable opportunity to comment on such undertakings. The goal of the Section 106 process is to identify historic

properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

**National Register of Historic Places (NRHP)**

Developed in 1981, the NRHP is an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment. Listing of private property on the NRHP does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property.

**Native American Graves Protection and Repatriation Act (NAGPRA)**

Enacted in 1990, NAGPRA conveys to American Indians of demonstrated lineal decent, the human remains and funerary or religious items that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. It also makes the sale or purchase of American Indian remains illegal, whether or not they derive from federal or Indian lands.

**The Secretary of the Interior's Standards**

The Secretary of the Interior is the head of the U.S Department of the Interior, which is nation's principal conservation agency. The department oversees agencies including the Bureau of Land Management, the Bureau of Indian Affairs, and the NPS.

**The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation**

The purpose of the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation of 1983 is to: 1) to organize the information gathered about preservation activities; 2) to describe results to be achieved by federal agencies, States, and others when planning for the identification, evaluation, registration and treatment of historic properties; and 3) to integrate the diverse efforts of many entities performing historic preservation into a systematic effort to preserve the nation's culture heritage.

**The Secretary of Interior's Standards for Rehabilitation**

Developed in 1986, the Secretary of the Interior's Standards for Rehabilitation are ten basic principles created to help preserve the distinctive character of a historic building and its site, while allowing for reasonable change to meet new needs.

**The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, 1995**

The Secretary of the Interior's Standards for the Treatment of Historic Properties were developed to help protect the nation's irreplaceable cultural resources by promoting consistent preservation practices. The Standards are a series of concepts about maintaining, repairing and replacing historic materials, as well as designing new additions or making alterations; as such, they cannot, in and of themselves, be used to make essential decisions about which

features of a historic property should be saved and which might be changed. But once an appropriate treatment is selected, the Standards provide philosophical consistency to the work.

### *2.5.2.2 State*

**State Historical Landmarks Program**

The State Historical Landmarks Program places an emphasis on well-known places and events in California history. The goals of the program include the preservation and maintenance of registered landmarks, most of which include missions, early settlements, battles, and gold rush sites. As of January 2008, 1,044 historical landmarks had been registered.

**State Points of Historical Interest Program**

The State Points of Historical Interest Program was established in the effort to accommodate local historic properties not able to meet the restrictive criteria of the State Historical Landmarks Program. The Points of Historical Interest Program requires the participation of local governmental officials, such as the chairperson of the Board of Supervisors, in the approval process. As of July 1997, 816 properties had been listed on the Points of Historical Interest Program.

**California Register of Historical Resources (CRHR)**

The CRHR is an authoritative guide for use by State and local agencies, private groups, and citizens to identify the State's historical resources. An historical resource can include any object, building, structure, site, area, or place that is determined to be historically or archaeologically significant. The CRHR also identifies historical resources for State and local planning purposes, determines eligibility for State historic preservation grant funding, and provides a certain measure of protection under CEQA.

**California Native American Graves Protection and Repatriation Act (Cal NAGPRA)**

The Cal NAGPRA 2001 conveys to American Indians of demonstrated lineal descent, the human remains and funerary items that are held by State agencies and museums.

**Public Resources Code (PRC)**

The following PRC sections pertain to cultural resources:

**PRC 5079-5079.65 – California Heritage Fund**

PRC Section 5079-5079.65 outlines the appropriate uses of the California Heritage Fund. The fund shall be available, upon appropriation by the State Legislature, to implement laws providing for historical resource preservation, including, but not limited to, Section 5028 and Executive Order W-26-92, under criteria developed by the Office of Historic Preservation and adopted by the State Historical Resources Commission.

### PRC 5097-5097.6 – Archaeological, Paleontological and Historical Sites

PRC Section 5097-5097.6 outlines the requirements for cultural resource analysis prior to the commencement of any construction project on State Lands. This section identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California Native American Heritage Commission (NAHC) whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

### PRC 5097.9-5097.991 – Native American Heritage

PRC Section 5097.9-5097.991 identifies that no public agency, and no private party using or occupying public property, or operating on public property, under a public license, permit, grant, lease, or contract made on or after July 1,1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the U.S. Constitution and the California Constitution; nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require it. In addition, this section details the composition and responsibilities of the NAHC. The NAHC strives for the preservation and protection of Native American human remains, associated grave goods, and cultural resources. The NAHC has developed a strategic plan to assist the public, development community, local and federal agencies, educational institutions and California Native Americans to better understand problems relating to the protection and preservation of cultural resources and to serve as a tool to resolve these problems and create an awareness among lead agencies and developers of the importance of working with Native Americans (NAHC 2008). PRC Sections 5097.91 and 5097.98 were amended by State Assembly Bill 2641 in 2006. This bill authorizes the NAHC to bring an action to prevent damage to Native American burial grounds or places of worship and establishes more specific procedures to be implemented in the event that Native American remains are discovered.

## Government Code (GC)

The following GC sections pertain to cultural resources:

### GC Section 25373

GC Section 25373 gives authority to local Governments to acquire property for the preservation or development of a historical landmark. In addition, local Governments may provide special conditions or regulations for the protection, enhancement, perpetuation, or use of places, sites, buildings, structures, works of art and other objects having a special character or special historical or aesthetic interest or value.

### GC Section 27288.2

GC Section 27288.2 requires the County Recorder to record a certified resolution establishing a historical resources designation issued by the State Historical Resources Commission or a local

agency. For previously designated properties, the County may record the certified resolution establishing the historical resources designation upon submission.

### GC Sections 50280-50290 – Mills Act

The Mills Act, implemented in unincorporated San Diego County through County Ordinance 9425 (amended by Ordinance 9628), provides for reduced property taxes on eligible historic properties in return for the property owner's agreement to maintain and preserve the historic property. Preservation of properties is to be in accordance with the standards and guidelines set forth by the Secretary of the Interior. There are approximately 1,120 structures within San Diego County currently under Mills Act contract in both in the unincorporated and incorporated areas (Smith 2002). In order to be designated, a building must meet qualifying criteria such as significant architecture, association with a historically significant event or person, or location in a historic district, such as Marston Hills.

## Health and Safety Code (HSC)

Several HSCs pertain to cultural resources:

### HSC Sections 18950-18961 – State Historic Building Code

HSC Sections 18950 through 18961 provides alternative building regulations and building standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of buildings or structures designated as historic buildings. Such alternative building standards and building regulations are intended to facilitate the restoration or change of occupancy so as to preserve their original or restored architectural elements and features, to encourage energy conservation and a cost-effective approach to preservation, and to provide for the safety of the building occupants.

### HSC 7050.5 - Human Remains

HSC Section 7050.5 requires that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. If the Coroner determines the remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall contact by telephone within 24 hours the Native American Heritage Commission. In addition, any person who mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor.

## Penal Code Section 622 – Destruction of Historical Properties

The California Penal Code Section 622 provides that any person, not the owner thereof, who willingly destroys or injures objects of archaeological or historical value, whether on public or private land, is guilty of a misdemeanor.

**Senate Bill (SB) 18 – Traditional Tribal Cultural Places**

SB 18, enacted in 2004, requires local governments to consult with Native American groups at the earliest point in the local government land use planning process. The consultation intends to establish a meaningful dialogue regarding potential means to preserve Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance. It allows for tribes to hold conservation easements and for tribal cultural places to be included in open space planning.

### *2.5.2.3 Local*

**County of San Diego Code of Regulatory Ordinances Sections 87.101 -87.804, Grading, Clearing, and Watercourses Ordinance**

Section 87.430 of the County's Grading and Clearing Ordinance provides for the requirement of a paleontological monitor at the discretion of the County. In addition, the suspension of grading operation is required upon the discovery of fossils greater than twelve inches in any dimension. The ordinance also requires notification of the County Official (e.g., Permit Compliance Coordinator). The ordinance gives the County Official the authority to determine the appropriate resource recovery operations, which shall be carried out prior to the County Official's authorization to resume normal grading operations.

Section 87.429 of the County's Grading and Clearing Ordinance requires that grading operations cease if human remains or Native American artifacts are found; and Section 87.216(a)(7) requires changes to grading plans/operations if it is determined that historic or archaeological resources may be located on site, in which case avoidance or mitigation will be required.

**County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)**

This ordinance requires that cultural resources be evaluated as part of the County's discretionary environmental review process and if any resources are determined significant under RPO, they must be preserved. RPO prohibits development, trenching, grading, clearing, and grubbing, or any other activity or use damaging to significant prehistoric or historic site lands, except for scientific investigations with an approved research design prepared by an archaeologist certified by the Register of Professional Archaeologists. Sites determined to be RPO significant must be avoided and preserved.

**Zoning Ordinance**

The County's Zoning Ordinance provides for the designation and regulation of "special areas." One type of special zoning area is a Historic/Archaeological Landmark or District. These resources may be assigned an "H" designator for historic areas or a specific district designator (e.g., Julian has a "J" designator). The purpose of these provisions is to identify, preserve, and protect the historic, cultural, archaeological and/ or architectural resource values of designated landmarks and districts. Zoning regulations for these resources are designed to preserve their integrity and content. Other types of resources of equal or greater significance may exist and

be designated in other ways such as the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR).

**Resource Conservation Areas (RCAs)**

County RCAs are identified lands requiring special attention in order to conserve resources in a manner best satisfying public and private objectives. The appropriate implementation actions will vary depending upon the conservation objectives of each resource but may include public acquisition, establishment of open space easements, application of special land use controls such as cluster zoning, large lot zoning, scenic or natural resource preservation overlay zones, or by incorporating special design considerations into subdivision maps or special use permits. RCAs include, but are not limited, to the following: groundwater problem areas, coastal wetlands, native wildlife habitats, construction quality sand areas, littoral sand areas, astronomical dark sky areas, unique geologic formations, and significant archaeological and historical sites. County departments and other public agencies must give careful consideration and special environmental analysis to all projects located in RCAs.

**San Diego County Local Register of Historical Resources**

The purpose of the San Diego County Local Register of Historical Places is to develop and maintain "an authoritative guide to be used by State agencies, private groups, and citizens to identify the County's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Sites, places, or objects that are eligible to the NRHP or the CRHR are automatically included in the San Diego County Local Register of Historical Places.

**San Diego County Historic Site Board**

The County of San Diego Historic Site Board is an advisory body that provides recommendations to decision makers regarding archaeological and historic cultural resources. The Historic Site Board is responsible for reviewing resources seeking historic designation and participation in the Mills Act as well as discretionary projects with significant cultural resources.

## 2.5.3 Analysis of Project Impacts and Determination of Significance

### *2.5.3.1 Issue 1: Historical Resources*

**Guidelines for Determination of Significance**

Section 5020.1 of the PRC defines a historic district as a definable unified geographic entity that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. A historical landmark means any historical resource which is registered as a state historical landmark pursuant to Section 5021, and a historical resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

The County of San Diego Ordinance No. 9493, Section V (d) (2) (Types of Historical Resources and Criteria for Listing in the San Diego County Register of Historical Resources) states that one of the criteria for historical listing is: "historical resources achieving significance within the past fifty (50) years." However, the County's Significance Guidelines states that "A resource less than fifty (50) years old may be considered if it can be determined that sufficient time has passed to understand its historical importance."

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in a substantial adverse change in the significance of an historical resource as defined in Section 15064.5 of the State CEQA Guidelines or the County's RPO through physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or

- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA Guidelines Section 15064.5(b)(2).

**Definition of an Historical Resource**

Section 15064.5(a) of the CEQA Guidelines defines "historical resources" as the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (Pub. Res. Code, Section 5024.1, Title 14 CCR, Section 4850 et seq.).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the

lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (Pub. Res. Code, Section 5024.1, Title 14 CCR, Section 4852 et. seq.) including the following:

a. Criterion A: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. Examples include resources associated with the Battle of San Pasqual, gold mining in the Julian area, or a Kumeyaay settlement.

b. Criterion B: Is associated with the lives of persons important in the past. Examples of significant resources include those associated with the lives of George W. Marston, Kate Sessions, John D. Spreckels, Ellen Browning Scripps, Ah Quin, Manuel O. Medina, Jose Manuel Polton (Hatam), or Jose Pedro Panto.

c. Criterion C: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Resources representing the work of architects such as William Templeton Johnson, Irving Gill, Lilian Rice, or Hazel Waterman would be considered significant because they represent the work of an important creative individual; or if a resource is identified as a Queen Anne, Mission Revival, Craftsman, Spanish Colonial, or Western Ranch Style structure, it would be significant because it embodies the distinctive characteristics of a type or period.

d. Criterion D: Has yielded, or may be likely to yield, information important in history. For example, a historic stone dam would be significant because it is considered unique and is likely to yield information important to history.

4. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the PRC), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

The following definition of an historical or archaeological resource was derived from the County's RPO:

- Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:
  - Formally determined eligible or listed in the NRHP by the Keeper of the National Register; or
  - To which the Historic Resource ("H" Designator) Special Area Regulations have been applied; or
- One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data and materials; and

- Any location of past or current sacred religious or ceremonial observances which is either:

    - Protected under Public Law 95-341, the American Indian Religious Freedom Act or PRC Section 5097.9, such as burials, pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, or
    - Other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

**Impact Analysis**

Significant historical resources are non-renewable and therefore cannot be replaced. The disturbance or alteration of a historical resource causes an irreversible loss of significant information. Regionally, the loss of historical resources results in the loss of cultural identity and a connection with the past.

Unincorporated San Diego County contains historical sites that are designated on local, State, and national historical lists and meets the definitions of historical resources under Section 15064.5(a) of the CEQA Guidelines or the County's RPO. These sites are described above in Section 2.5.1.1 and listed in Table 2.5-2. These resources include historical residences, school houses, stage depots, and cemeteries throughout the County. However, historical resources tend to be concentrated in the more developed areas of the County such as Spring Valley and San Dieguito, and in areas with established town centers, such as Ramona, Julian and Fallbrook. Historical resources are also generally located along major roadways in the County, such as I-8 and SR-78. In addition, some resources exist within the unincorporated County that are historically significant but have not yet been designated.

Two types of typical adverse effects occur in relation to historical resources: direct and indirect effects. Direct impacts are caused by and are immediately related to a project, such as the demolition of an historical building. Indirect impacts are not immediately related to a project, but they are caused indirectly by a project. An example of an indirect impact would be the placement of trails in open space areas containing historical resources, which has the potential to impact historical resources indirectly through activities such as vandalism or degradation of the resources from increased access and use. Designated and potentially significant historical resources could be directly and/or indirectly impacted as a result of new private or public development or redevelopment allowable under the proposed General Plan Update. New development under the proposed General Plan Update could result in the destruction of historical resources through development activities such as grading, clearing, demolition, alteration, or structural relocation. The General Plan Update could also result in an increase in development intensity which could adversely affect historical sites though the introduction of visual, audible, or atmospheric effects that are out of character with the historical resources or alter the setting of the resources when the setting contributes to the resources' significance. The proposed General Plan Update may also result in the redevelopment of a historical structure or site that may result in the remodeling, alteration, addition, or demolition of a historical resource, or a change in use that is not compatible with the authenticity of the resource and that would substantially alter its significance. Additionally, infrastructure or other public works improvements associated with development allowable under the proposed General Plan Update could result in damage to or demolition of historical features.

Impacts to communities with high concentrations of historic resources, and communities that have been surveyed for historic resources are at risk for direct and indirect impacts from development. To minimize impacts to historic resources, each Community Plan will include in the Conservation Section, a listing of historic buildings and sites that are important and significant to that community or, in the case of those with historic surveys, a reference to the survey will be made. All known historic buildings, or sites have been flagged so that any permit activity relating to a property having known significant historic sites will be required to undergo additional review by an environmental specialist. All discretionary projects will be subject to a rigorous cultural review with the goal of identifying significant historic sites and conditioning their preservation.

**Federal, State and Local Regulations and Existing Regulatory Processes**

As identified in the Regulatory Framework section above, there are a number of federal, State, and local regulations in place to protect historical resources in the County, with which the General Plan Update is required to comply. The RPO requires that cultural resources be evaluated as part of the County's discretionary environmental review process and prohibits trenching, grading, clearing and grubbing, or any other activity or use damaging to significant historical site lands, except for scientific investigation with an approved research design prepared by a certified archaeologist. PRC Section 5097 outlines the requirements for a cultural resources analysis prior to construction on State lands, and the PRC and California Penal Code 622 make it a misdemeanor criminal offense to disturb or destroy historical resources without authorization. The Mills Act grants local governments the authority to directly implement a historic preservation program. The Mills Act serves as an economic incentive to owners to preserve their historic properties for the benefit of the entire community. State HSC 18950-1896 and the Secretary of the Interior's Standards for Rehabilitation provide regulations for the restoration or rehabilitation of historic structures to preserve their original or restored architectural elements and features, while providing a safe building for occupants. Additionally, the Secretary of the Interior's Standards for the Treatment of Historic Properties were developed to help protect historical resources by promoting consistent preservation practices.

In addition to the above-mentioned regulations, designated historic resources are mapped in the County's GIS system and all permits are reviewed against these maps to ensure that appropriate reviews are undertaken to comply with State law. Additionally, Special Area Designators (discussed under Section 2.5.2.3, Issue 3: Paleontological Resources) are used to identify historic resources and require review through the Zoning Ordinance.

Reviews are also required through the County's discretionary review process pursuant to RPO and CEQA. The RPO requires a discretionary project to evaluate the historic eligibility of a resource, while CEQA requires a discretionary project to be analyzed for significant impacts to historical resources.

**Proposed General Plan Update Goals and Policies**

The Conservation and Open Space Element includes goals and policies to prevent the proposed General Plan Update from adversely impacting historical resources. Goal COS-8 in the Conservation and Open Space Element identifies the need to protect, conserve, use, and enjoy the County's important historic resources. Policy COS-8.1 supports this goal by encouraging the preservation and/or appropriate adaptive re-use of historic structures and the preservation of historical landscaping as a means of protecting important historical resources

while respecting the heritage, context, design, and scale of older structures and neighborhoods. In addition, mitigation measure Cul-1-7 would develop procedures to minimize the loss of historic structures through the Ministerial Permit process.

**Summary**

Implementation of the proposed project would have the potential to result in substantial adverse changes to the significance of historical resources. Designated and potentially significant historical resources could be disturbed due to demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under the proposed General Plan Update. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect historical resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. The County has a 50-year threshold to review for consideration of mitigation for projects affecting historic resources to ensure their consistency with CEQA Guidelines and the requirements of the California Register of Historic Resources and the National Register of Historic Places. Therefore, the proposed project is concluded to result in a potentially significant impact to historical resources and specific implementation programs are identified as mitigation.

### *2.5.3.2 Issue 2: Archaeological Resources*

**Guidelines for Determination of Significance**

As described above in Section 2.5.3.1, significant cultural resources are non-renewable and therefore cannot be replaced. The disturbance or alteration of a cultural resource causes an irreversible loss of significant information. Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a potentially significant impact if it would cause a substantial adverse change in the significance of an archaeological resource as defined by PRC Section 21083.2, State CEQA Guidelines Section 15064.5(a), and the criteria provided below. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

**Definition of an Archaeological Resource**

PRC Section 21083.2 defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Under the CEQA Guidelines, archaeological resources may also be considered historical resources. Therefore, definitions of archaeological resources, as defined in Section 15064.5 of the CEQA Guidelines and the County's RPO, are the same as those provided above in Section 2.5.3.1, Issue 1: Historical Resources. Please refer to this section for definitions of archaeological (historical) resources.

**Impact Analysis**

The proposed General Plan Update could result in an adverse change in the significance of archaeological resources by proposing the development of land uses that would result in ground-disturbing activities without proper regulation and monitoring. Such alteration of archaeological resources may result in a loss of valuable information that could be gained from the resources, or prevent potentially eligible sites from being listed on a register of cultural resources. Ground-disturbing activities, such as clearing, excavation and grading, have the potential to damage or destroy archaeological resources that may be present on or below the ground surface, particularly in areas that have not previously been developed.

Cultural resources exist in many undeveloped and developed areas, in town centers, and under agricultural lands. Although the potential exists for cultural resources to exist in all proposed land use designations, some land uses have a greater potential to impact cultural resources than others. The proposed General Plan Update would designate higher density land uses in the western portion of the unincorporated County. Therefore, the western portion of the unincorporated County would experience increased impacts to archaeological resources as compared to other parts of the County, because higher density land uses are more likely to result in development that requires extensive excavation or grading activities during construction or utility installation. However, areas within the eastern portion of the unincorporated County would also experience potential impacts to archaeological resources from development allowable under the proposed General Plan Update and the installation of septic tanks or access roads, although to a lesser extent than areas within the western portion of the County.

Although most land uses proposed under the General Plan Update would allow for excavation and grading activities during development, some land uses would result in greater land disturbance activities than others, and would therefore be more likely to result in impacts to archaeological resources. For example, areas designated for village residential, commercial or industrial land uses would be more likely to result in construction activities that involve extensive excavation or grading activities than some of the lower intensity land use designations. Impacts to archaeological resources in areas designated for higher intensity land uses would be likely to occur. In contrast, open space recreation or open space conservation land use designations would generally not allow land uses that would involve excavation or grading activities during construction. Therefore, impacts to archaeological resources in areas with these land use designations would generally not occur.

While many archaeological sites are known and have been recorded, there is the potential for unknown archaeological resources to exist within the County, particularly in areas that have not previously been surveyed for resources. The location of past discoveries of archaeological resources can be useful in determining where potential impacts to unknown archaeological resources may occur. For example, the earliest known archaic sites in San Diego County are found near coastal lagoons and river valleys, while Late Period archaeological sites are found on the northern and eastern periphery of San Diego County. Therefore, construction activities in coastal lagoons, river valleys or periphery areas of the County would be more likely to result

in potentially significant impacts to archaeological resources than construction activities in other areas of the County.

Additionally, archaeological resources may also be subject to indirect impacts as a result of land use development activities that increase erosion, fugitive dust, or the accessibility of a surface or subsurface resource, and thus increase the potential for the degradation of the resource.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The proposed General Plan Update would comply with all applicable regulations pertaining to archaeological resources, such as NAGPRA, Cal NAGPRA, PRC Section 5079, CEQA Section 210831, and the County RPO. NAGPRA requires the repatriation of funerary or religious items held by federal agencies or federally funded museums, or removed from federal land, to the American Indians of demonstrated lineal descent. Cal NAGPRA requires the repatriation of such items from State agencies, museums, and lands. PRC Section 5079 outlines the requirements for cultural resource analysis prior to construction on State lands, and makes it a misdemeanor criminal offense to disturb or remove archaeological resources without authorization, and prohibits severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except with a clear and convincing showing that the public interest and necessity so require it. The County RPO prohibits trenching grading, clearing and grubbing, or any other activity or use damaging to significant archaeological site lands, except for scientific investigation with an approved research design prepared by a certified archaeologist. In additional to RPO compliance, all discretionary approvals are also subject to CEQA which requires consideration of potential impacts to archaeological resources. The County employs several archaeological specialists that review projects and access local and regional databases to determine if further study is necessary. In addition, because of the potential presence of unknown, archaeological resources, previously unsurveyed properties are surveyed, as necessary.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains several policies in the Conservation and Open Space Element that would reduce potential impacts to archaeological resources. Goal COS-7 requires protection and preservation of the County's important archaeological resources for research and education potential. Policies COS-7.1, COS-7.2, COS-7.3, COS-7.4 support this goal by describing how archaeological resources should be protected. Policy COS-7.1 requires new development to include appropriate mitigation to protect the quality and integrity of important archaeological resources, as defined by the PRC. Policy COS-7.2 seeks to avoid archaeological resources and protect them in open space easements whenever possible. When complete avoidance is not possible, resources would be incorporated into project design and/or impacts would be mitigated through the completion of a data recovery program. Policy COS-7.3 requires appropriate treatment and preservation of collected archaeological resources. Policy COS-7.4 requires consultation with local Native American tribes concerning the preservation and treatment of tribal archaeological resources and support of appropriate signage.

**Summary**

Implementation of the proposed General Plan Update would have the potential to result in a substantial adverse change in the significance of an archaeological resource, including the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory. The western portion of the unincorporated County would experience increased impacts to archaeological resources as compared to other parts of the County, because the higher density land uses proposed in this area are more likely to result in ground disturbing activities during construction that would impact archaeological resources. Similarly, areas designated for village residential, commercial, industrial, or other high intensity land uses would be likely to result in impacts to archaeological resources from construction activities that involve extensive clearing, excavation or grading. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect archaeological resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to archaeological resources and specific implementation programs are identified as mitigation.

## *2.5.3.3 Issue 3: Paleontological Resources*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would directly or indirectly destroy a unique paleontological resource or site.

**Definition of a Unique Paleontological Resource**

For the purposes of this EIR, a unique paleontological resource is any fossil or assemblage of fossils, paleontological resource site, or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally
- Illustrates a life-based geologic principle (e.g., faunal succession)
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data)
- Encompasses any part of a “type locality” of a fossil or formation
- Contains a unique or particularly unusual assemblage of fossils
- Occupies a unique position stratigraphically within a formation
- Occupies a unique position, proximally, distally or laterally within a formation’s extent or distribution

## Impact Analysis

Impacts to paleontological resources generally occur from the physical destruction of fossil remains by excavation operations that cut into geologic formations. Trenching and tunneling activities may also result in impacts to paleontological resources. When such activities occur, potential impacts are limited to the immediate area of disturbance. The covering of undisturbed paleontological sites would not represent a potentially significant impact, as the resources would be left intact and would not be destroyed. Because paleontological resources are typically located underground and, therefore, not apparent until revealed by excavation, the potential for significant impacts to paleontological resources to occur is based on the extent that a geologic formation would be disturbed and the potential for those geologic formations to contain fossils.

Activities resulting from implementation of the proposed General Plan Update, especially construction-related and earth-disturbing actions, could damage or destroy fossils in the underlying rock units. Loss or alteration of paleontological resources may result in an irreversible loss of significant information that could be obtained from these non-renewable resources. Although most land uses proposed under the General Plan Update would allow for excavation and grading activities during development, some land uses would result in greater land disturbance activities than others, and would therefore be more likely to result in impacts to paleontological resources than others. For example, the proposed General Plan Update would designate higher density land uses in the western portion of the unincorporated County. Higher density land uses, such as village residential, commercial or industrial, would be more likely to result in development that requires extensive excavation or grading activities than lower density uses. Impacts to paleontological resources in areas designated for higher density land uses, including areas in the western portion of the County as well as town center areas in the eastern portion of the County, would be potentially significant. In contrast, open space recreation or open space conservation land use designations would generally not allow land uses that would involve excavation or grading activities during construction. Therefore, impacts to paleontological resources in areas with low density land use designations would have a low potential to occur.

As previously discussed, paleontological resources potentially occur in sedimentary geologic formations. Ground-disturbing activities in high or moderate sensitivity fossil-bearing geologic formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Potentially fossil-bearing geologic formations are generally concentrated along the western and eastern boundaries of the unincorporated County, as shown in Figure 2.5-3. CPAs and Subregions with high and moderate paleontological sensitivity include Pendleton/De Luz, Pala/Pauma, North County Metro, San Dieguito, Ramona, Lakeside, Valle De Oro, Sweetwater, Spring Valley, Jamul/Dulzura, Otay, Mountain Empire, Desert, and North Mountain. Under implementation of the General Plan Update, many of the CPAs and Subregions with high and moderate paleontological sensitivity, such as North County Metro, San Dieguito, Ramona, Lakeside, Valle De Oro, Alpine and Otay, would be designated for high density land uses. As discussed above, areas designated for high density land uses would be likely to experience extensive excavation and earthwork during construction activities that would have the potential to impact underlying formations containing paleontological resources. Therefore, development of land uses designated by the proposed General Plan Update would have the potential to significantly impact paleontological resources.

It should also be noted that areas with marginal or low paleontological sensitivity are located throughout the eastern, central and western portions of the unincorporated County. Although

the General Plan Update proposes both high and low density land uses throughout these areas, it is unlikely that paleontological resources would be impacted by development of land uses in the areas of the County where paleontological sensitivity is considered marginal or low. Impacts in these areas would be less than significant.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Several regulations currently provide for the protection of paleontological resources, such as PRC Section 5097, the County Grading Ordinance, and CEQA. PRC Section 5097 makes it a misdemeanor criminal violation to disturb or remove paleontological resources without authorization. The County Grading Ordinance requires a paleontological monitor to be present during grading or excavation activities at the discretion of the County, mandates the suspension of grading operations upon the discovery of fossils greater than 12 inches in any dimension, and gives the appropriate County Official, such as the Permit Compliance Coordinator, the authority to determine the appropriate resource recovery operations, which shall be carried out prior to the County Official's authorization to resume normal grading operations. CEQA also requires review of discretionary projects with regard to potential impacts to paleontological resources. The County's review of potential impacts to paleontological resources is conducted pursuant to its Guidelines for Determining Significance, Paleontological Resources.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes one goal and policy in the Conservation and Open Space Element that would protect paleontological resources. Goal COS-9 requires that paleontological resources and unique geologic features be conserved for educational and/or scientific purposes. Policy COS-9.1 supports this goal by requiring the salvage and preservation of unique paleontological resources when exposed to the elements during excavation, grading activities, or other development practices.

**Summary**

Implementation of the proposed General Plan Update would have the potential to directly or indirectly destroy a unique paleontological resource or site. Areas of the County designated for high density land uses, such as village residential, commercial or industrial, that also have a high or moderate paleontological sensitivity, would have the potential to significantly impact paleontological resources from extensive excavation or grading activities associated with development. This includes any CPAs or Subregions in the unincorporated County with high or moderate paleontological sensitivity that are proposed for high density land uses under the General Plan Update. The western portion of the unincorporated County is designated for higher density land uses and would therefore experience increased impacts to paleontological resources as compared to other parts of the County, because higher density land uses are more likely to result in development that requires extensive excavation or grading activities, which has the potential to impact paleontological resources. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect unique paleontological resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to unique paleontological resources and specific implementation programs are identified as mitigation.

### *2.5.3.4 Issue 4: Human Remains*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would disturb any human remains, Native American or otherwise, including those interred outside of formal cemeteries. Section 15064.5(d) and (e) of the CEQA Guidelines assign special importance to human remains and specify procedures to be used when Native American remains are discovered. These procedures are detailed under PRC Section 5097.98, described in Section 2.5.2.2.

**Impact Analysis**

Archaeological materials, including human burials, have been found throughout unincorporated San Diego County. Human burials have occurred outside of formal cemeteries, usually associated with archaeological resource sites and prehistoric peoples. Therefore, areas with known archaeological resources sites may have a higher risk for containing human remains. As described above in Section 2.5.3.2, the location of most of these sites is kept confidential in order to protect these resources; however, resources throughout the County include remains left by local Native Americans and other early inhabitants, including the Late Prehistoric, La Jolla, San Dieguito, Pauma, Kumeyaay, and Luiseño complexes.

The disturbance of any human remains is considered a significant impact, regardless of archaeological significance or association. While some burials have been uncovered, the potential exists for unknown burials to be present, including Native American burials. As evident from human remains that were previously discovered throughout the unincorporated County, there is the potential for impacts to human remains to occur as the result of development allowable under the proposed General Plan Update. Ground disturbing impacts, including grading, excavation, and utilities installation during construction, would have the potential to cause adverse impacts to currently undiscovered human remains. The potential for disturbance may be reduced through surveying a site to determine the likelihood that human remains are present, review of archaeological records to determine if human remains are known to occur in the area, and then designing the project to avoid areas where burials may be present. However, if surface evidence and archaeological records do not exist for a site, construction activities associated with the development of land uses consistent with the General Plan Update, including grading and excavation, would have the potential to disturb human remains. As discussed above, any disturbance is considered to be a significant impact.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Native American human burials have specific provisions for treatment in PRC Section 5097, as amended by Assembly Bill 2641, which addresses the disposition of Native American burials, protects such remains, and establishes the NAHC to resolve any related disputes. Additionally, Cal NAGPRA requires repatriation of Native American human remains and funerary items that are held by State agencies and museums. Disturbing human remains would destroy the resources and could potentially violate the health code. The California HSC Section 7050.5 has specific provisions for the protection of human burial remains, Native American or otherwise, if they are discovered, as described above in Section 2.5.2.2. HSC Section 7050.5 requires that in the event of discovery or recognition of any human remains in any location other than a

dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. In addition, any person who mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor criminal offense.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies intended to protect human remains. Within the Conservation and Open Space Element, Goal COS-7 is to protect and preserve the County's important archaeological resources for their cultural importance to local communities, as well as their research and educational potential. Policy COS-7.5 supports this goal by requiring that human remains be treated in a sensitive and proper manner.

**Summary**

Implementation of the proposed General Plan Update would have the potential to disturb human remains, including those located outside of formal cemeteries. Ground-disturbing activities from the development of land uses proposed in the General Plan Update would have the potential to cause adverse impacts to human remains. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with human remains, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to human remains and specific implementation programs are identified as mitigation.

## 2.5.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for cultural resources varies depending on the type of resource with potential to be impacted. Geographic scope can be the entire area within which the resource has the potential to occur. For the purpose of this EIR, the geographic scope for the cumulative analysis of cultural resources is the southern California region, including both incorporated and unincorporated areas of San Diego County, surrounding counties and Mexico. The geographic scope for the cumulative analysis of paleontological resources includes the Salton Trough, Peninsular Ranges, and Coastal Plain regions within southern California.

### *2.5.4.1 Issue 1: Historical Resources*

Cumulative projects located in the southern California region would have the potential to result in a cumulative impact associated with the loss of historical resources through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Cumulative projects that would have the potential to result in adverse impacts to historical resources from development activities include the SCAG RTP, SANDAG RTP, private projects not included in the General Plan Update, and the development of land uses as designated under surrounding jurisdictions general plans. These projects are regulated by federal, State and local regulations, including PRC Section 5097, California Penal Code 622, the Mills Act, State HSC 18950-1896, and the Secretary of the Interior's Standards for Rehabilitation and Standards for the Treatment

of Historic Properties, and would be required to comply with these regulations. However, cumulative projects located in Mexico would not be subject to compliance with such regulations. Additionally, even with regulations in place, individual historical resources would still have the potential to be impacted or degraded from demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under cumulative projects. Therefore, the cumulative destruction of significant historical resources from construction and development planned within the region would be considered to be a cumulatively significant impact. Additionally, past projects involving development and construction have already impacted historical resources within the region.

As discussed above in Section 2.5.3.1, Issue 1: Historical Resources, implementation of the proposed project would have the potential to result in substantial adverse changes to the significance of historical resources due to demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under the proposed General Plan Update. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with historical resources.

### *2.5.4.2 Issue 2: Archaeological Resources*

Cumulative projects located in the southern California region would have the potential to result in a cumulative impact associated with the loss of archaeological resources through development activities that could cause a substantial adverse change in the significance of an archaeological resource. Cumulative projects that may result in significant impacts include any projects that involve ground disturbing activities, and include but are not limited to, tribal projects, energy and utility projects, private projects not included in the General Plan Update, or the development of land uses as designated under surrounding jurisdictions general plans. These projects would be regulated by applicable federal, State and local regulations, including NAGPRA, Cal NAGPRA, Section 106 of the NHPA, PRC Section 5079, CEQA Section 21083.2, and the County RPO. However, cumulative projects located in Mexico would not be subject to compliance with such regulations. Additionally, the loss of archaeological resources on a regional level may not be adequately mitigable through the data recovery and collection methods specified in these regulations, as their value may also lie in cultural mores and religious beliefs of applicable groups. Therefore, the cumulative destruction of significant archaeological resources from planned construction and development projects within the region would be cumulatively significant. Additionally, past projects involving development and construction have already impacted archaeological resources within the region.

As discussed in Section 2.5.3.2 above, implementation of the proposed General Plan Update would have the potential to result in a substantial adverse change in the significance of an archaeological resource, including the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with archaeological resources.

### 2.5.4.3 Issue 3: Paleontological Resources

Cumulative projects located in the southern California region would have the potential to result in a cumulative impact associated with paleontological resources from extensive grading, excavation or other ground-disturbing activities. Cumulative project that require significant excavation, such as regional energy and utility projects or the construction of new roadways under the SCAG RTP or SANDAG RTP would result in adverse impacts to paleontological resources. Additionally, if a cumulative project that requires excavation or grading is located in an area of high or moderate sensitivity, this would result in an increased potential for an adverse impact to a paleontological resource to occur. Cumulative projects on State or public lands would be required to comply with PRC Section 5097-5097.6 pertaining to impacts to paleontological resources. Most other cumulative projects would be regulated by State and local regulations, including CEQA and the County Grading Ordinance. However, cumulative projects located in Mexico would not be subject to compliance with such regulations. Additionally, the loss of paleontological resources on a regional level may not be adequately mitigable through methods specified in these regulations. Therefore, the cumulative destruction of significant paleontological resources from planned construction and development within the region would be cumulatively significant. Additionally, past projects involving development and construction have already impacted paleontological resources within the region.

As discussed in Section 2.5.3.3, Issue 3: Paleontological Resources above, areas of the County designated for high density land uses under the General Plan Update, such as village residential, commercial or industrial, that also have a high or moderate paleontological sensitivity, would have the potential to significantly impact paleontological resources from construction activities associated with development. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with paleontological resources.

### 2.5.4.4 Issue 4: Human Remains

Cumulative projects located in the southern California region would have the potential to result in impacts associated with human remains due to grading, excavation or other ground-disturbing activities. Projects that may result in adverse impacts to human remains from development activities include the SCAG RTP, SANDAG RTP, private projects not included in the General Plan Update, or the development of land uses as designated under surrounding jurisdictions general plans. Cumulative projects would be required to comply with NAGPRA, PRC Section 5097.9-5097.991, Cal NAGPRA, and HSC Section 7050.5, if human remains were encountered during project development. However, cumulative projects located in Mexico would not be subject to compliance with such regulations, although these projects would not contribute to a significant cumulative impact because impacts would be limited to the immediate vicinity. Additionally, on a regional level, the disturbance of human remains that are also considered archaeological resources may not be adequately mitigable through methods specified in these regulations, as their value may also lie in cultural mores and religion beliefs of applicable groups. Therefore, the cumulative disturbance of human remains by construction and development within the region would be considered a cumulatively significant impact. Additionally, past projects involving development and construction have already impacted human remains within the region.

As discussed in Section 2.5.3.4, Issue 4: Human Remains above, implementation of the proposed General Plan Update would have the potential to disturb human remains, including those located outside of formal cemeteries, from ground-disturbing activities associated with the development of land uses proposed in the General Plan Update. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with human remains resources.

## 2.5.5 Significance of Impact Prior to Mitigation

The proposed General Plan Update would result in potentially significant direct impacts to historical resources, archaeological resources, paleontological resources and human remains prior to mitigation. The proposed project would also have the potential to result in significant cumulative impacts associated with historical resources, archaeological resources, paleontological resources and human remains.

## 2.5.6 Mitigation

### *2.5.6.1 Issue 1: Historical Resources*

The following General Plan Update policy and mitigation measures would mitigate direct and cumulative impacts to historical resources to below a significant level.

**Proposed General Plan Update Policies**

**Policy COS-8.1: Preservation and Adaptive Reuse.** Encourage the preservation and/or adaptive reuse of historic sites, structures, and landscapes as a means of protecting important historic resources as part of the discretionary application process, and encourage the preservation of historic structures identified during the ministerial application process.

**Mitigation Measures**

Mitigation measure Cul-2.6 is also relevant to this issue and is incorporated here by reference; however, it would not require consultation with the Native American Heritage Commission (NAHC) and local tribal governments. In addition, the following mitigation measures would be implemented to reduce impacts to historical resources.

**Cul-1.1** Utilize the RPO, CEQA, the Grading and Clearing Ordinance, and the Zoning Ordinance to identify and protect important historic and archaeological resources by requiring appropriate reviews and applying mitigation when impacts are significant.

**Cul-1.2** Provide incentives through the Mills Act to encourage the restoration, renovation, or adaptive reuse of historic resources.

**Cul-1.3** Initiate a new effort to identify and catalog historic and potentially historic resources within unincorporated San Diego County. This process will require public participation and evaluation by County staff and the Historic Site Board. The anticipated result of this effort is: 1) at minimum, landowners will be better informed of potential resources on their properties as well as the options

available to them under the State/National Register or the Mills Act; and 2) in some cases, properties may be zoned with a special area designator for historic resources, thereby restricting demolition/removal and requiring a Site Plan permit for proposed construction which will be reviewed by the Historic Site Board.

**Cul-1.4** Support the Historic Site Board in their efforts to provide oversight for historic resources.

**Cul-1.5** Ensure landmarking and historical listing of County owned historic sites.

**Cul-1.6** Implement, and update as necessary, the County's Guidelines for Determining Significance for Cultural Resources to identify and minimize adverse impacts to historic and archaeological resources.

**Cul-1.7** Identify potentially historic structures within the County and enter the information in the Department of Planning and Land Use property database. Identification will occur by compiling information from all available sources (e.g., County surveys, Historic Site Board, information received from SOHO and community planning groups, information from other jurisdictions, etc.) and shall be updated at least every five years.

**Cul-1.8** Revise the Resource Protection Ordinance (RPO) to apply to the demolition or alteration of identified significant historic structures.

### *2.5.6.2 Issue 2: Archaeological Resources*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts to archaeological resources to below a significant level.

**Proposed General Plan Update Policies**

**Policy COS-7.1: Archaeological Protection.** Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.

**Policy COS-7.2: Open Space Easements.** Require development to avoid archaeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.

**Policy COS-7.3: Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.

**Policy COS-7.4: Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.

**Mitigation Measures**

Mitigation measures Cul-1.1 and Cul-1.6 above are relevant to this issue and are incorporated here by reference. In addition, the following mitigation measures would be implemented to reduce impacts to archaeological resources.

**Cul-2.1** Develop management and restoration plans for identified and acquired properties with cultural resources.

**Cul-2.2** Facilitate the identification and acquisition of important resources through collaboration with agencies, tribes, and institutions, such as the South Coast Information Center (SCIC), while maintaining the confidentiality of sensitive cultural information.

**Cul-2.3** Support the dedication of easements that protect important cultural resources by using a variety of funding methods, such as grants or matching funds, or funds from private organizations.

**Cul-2.4** Protect significant cultural resources through regional coordination and consultation with the NAHC and local tribal governments, including SB-18 review.

**Cul-2.5** Protect undiscovered subsurface archaeological resources by requiring grading monitoring by a qualified archaeologist and a Native American monitor for ground disturbing activities in the vicinity of known archaeological resources, and also, when feasible, during initial surveys.

**Cul-2.6** Protect significant cultural resources by facilitating the identification and acquisition of important resources through regional coordination with agencies, and institutions, such as the South Coast Information Center (SCIC) and consultation with the Native American Heritage Commission (NAHC) and local tribal governments, including SB-18 review, while maintaining the confidentiality of sensitive cultural information.

### *2.5.6.3 Issue 3: Paleontological Resources*

The following General Plan Update policy and mitigation measures would mitigate direct and cumulative impacts to paleontological resources to below a significant level.

**Proposed General Plan Update Policies**

**Policy COS-9.1: Preservation.** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.

**Mitigation Measures**

**Cul-3.1** Implement the Grading Ordinance and CEQA to avoid or minimize impacts to paleontological resources, require a paleontological resources monitor during

grading when appropriate, and apply appropriate mitigation when impacts are significant.

**Cul-3.2** Implement, and update as necessary, the County's Guidelines for Determining Significance for Paleontological Resources to identify and minimize adverse impacts to paleontological resources.

### *2.5.6.4 Issue 4: Human Remains*

The following General Plan Update policy and mitigation measure would mitigate direct and cumulative impacts to human remains to below a significant level.

**Proposed General Plan Update Policies**

**Policy COS-7.5: Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations.

**Mitigation Measures**

Mitigation measures Cul-1.1 and Cul-1.6 above are relevant to this issue and are incorporated here by reference. In addition, the following mitigation measures would be implemented to reduce impacts to human remains.

**Cul-4.1** Include regulations and procedures for discovery of human remains in all land disturbance and archaeological-related programs. Ensure that all references to discovery of human remains promote preservation and include proper handling and coordination with Native American groups. Apply appropriate mitigation when impacts are significant.

## 2.5.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and identifies the level of impact that would occur after General Plan Update policies and mitigation measures are implemented.

### *2.5.7.1 Issue 1: Historical Resources*

Implementation of the proposed General Plan Update would facilitate new development that, in turn would have the potential to result in substantial adverse changes to the significance of historical resources. Therefore, the proposed project would result in a potentially significant impact to historical resources. Additionally, the proposed project would result in a potentially significant cumulative impact prior to mitigation. However, the proposed General Plan Update policies and mitigation measures identified in Section 2.5.6.1 would mitigate potentially significant direct and cumulative impacts identified for the proposed project to a less than significant level.

### 2.5.7.2 Issue 2: Archaeological Resources

Implementation of the proposed General Plan Update would result in new development that would have the potential to cause a substantial adverse change in the significance of an archaeological resource, including the destruction or disturbance of an archaeological site that contains or has the potential to contain information important to history or prehistory. Therefore, the proposed project would result in a potentially significant impact to archaeological resources. Additionally, the proposed project would result in a potentially significant cumulative impact prior to mitigation. However, the proposed General Plan Update policies and mitigation measures identified in Section 2.5.6.2 would mitigate the proposed project's potentially significant direct and cumulative impacts related to archaeological resources to a less than significant level.

### 2.5.7.3 Issue 3: Paleontological Resources

Implementation of the proposed General Plan Update would result in new development that would have the potential to adversely impact unique paleontological resources. Therefore, the proposed project would result in a potentially significant impact to paleontological resources. Additionally, the proposed project would result in a potentially significant cumulative impact prior to mitigation. However, the proposed General Plan Update policy and mitigation measure identified in Section 2.5.6.3 would mitigate proposed project's potentially significant direct and cumulative impacts related to paleontological resources to a less than significant level.

### 2.5.7.4 Issue 4: Human Remains

Implementation of the proposed General Plan Update would result in new development that would have the potential to disturb human remains, including those discovered outside of formal cemeteries. Therefore, the proposed project would result in a potentially significant impact associated with human remains. Additionally, the proposed project would result in a potentially significant cumulative impact prior to mitigation. However, the proposed General Plan Update policy and mitigation measure identified in Section 2.5.6.4 would mitigate potentially significant direct and cumulative impacts related to human remains to a less than significant level.

**Table 2.5-1. Terminology for Culture History in the San Diego Area**

| Geologic Time | Period | Years Before Present | Other Names | Diagnostic Cultural Material |
|---|---|---|---|---|
| Late Holocene | Late Period | Present | Historic/Contact<br>Precontact/Yuman<br>Kumeyaay/Luiseno<br>Cuyamaca Complex<br>San Luis Rey I, II  | Bow-and-arrow, small triangular and side-notched points, cremations, fish hooks, ceramics, Obsidian Butte obsidian |
| | | 1300 | | |
| Middle Holocene | Early Period (Archaic) | 2,000 |  | Stone bowls, triangular points, fishing gorges, burials |
| | | 3,000 | | |
| | | 4,000 |  | Dart and atlatl, cogged stones, plummet stones, leaf-shaped points/knives, corner-notched and stemmed points, Coso Obsidian, burials |
| | | 5,000 | | |
| | | 6,000 | | |
| Early Holocene | | 7,000 | Pauma Complex<br>Encinitas Tradition<br>La Jolla Complex  | Spear, crescents, lanceolate and leaf-shaped points, leaf shaped knives, Casa Diablo and Coso Obsidian, burials |
| | | 8,000 |  | |
| | | 9,000 | | |
| | | 10,000 | San Dieguito Tradition/ Complex | |

Source: San Diego County DPLU, 2007; Gallegos, 2002

## Table 2.5-2. Significant Historical Sites

| Designation[(1)] | Resource Name | CPA/Subregional Planning Area |
|---|---|---|
| HPL #2005-003 | Julian Eltinge Residence | Alpine |
| HPL #2006-003 | Alpine's Woman's Club | Alpine |
| HPL #2002-009 | Vincent & Adele Whelan House | Bonita |
| HPL #2002-010 | Russell C. & Ella B. Allen House | Bonita |
| HPL #2007-004 | Glen Abbey Memorial Park | Bonita |
| HPL #2007-005 | U.S. Grant House | Bonita |
| HPL #6 | Bonsall School House | Bonsall |
| NRHP #70000145, NHL, CHL #940 | Guajome Ranch House | Bonsall |
| CHL# 634 | El Vado | Borrego Springs |
| CHL #635 | Los Puertecitos | Borrego Springs |
| NRHP #73002252, CHL #858 | Fages-De Anza Trail-Southern Emigrant Road | Borrego Springs |
| CHL #750 | Peg Leg Smith Monument | Borrego Springs |
| CHL #673 | San Gregorio | Borrego Springs |
| CHL #785 | Santa Catarina | Borrego Springs |
| HPL #2003-005 | Camp Lockett Historic District | Campo |
| CHL #411 | Campo Stone Store | Campo |
| HPL #10 | Descanso First Schoolhouse (including ruins and farm) | Descanso |
| HPL #11 | Descanso Station Restaurant (including Wayside Stop) | Descanso |
| HPL #12 | Descanso Town Hall | Descanso |
| HPL #2006-005 | Descanso Rock cabin | Descanso |
| HPL #2007-001 | Dulzura Café | Dulzura |
| HPL #16 | Oddfellows Cemetery | Fallbrook |
| HPL #17 | Ostrich Creek Bridge | Fallbrook |
| HPL #2003-004 | Live Oak Park Tables & Objects | Fallbrook |
| HPL #2005-005 | Lamb House | Fallbrook |
| NRHP #83003593 | Table Mountain District | Jacumba |
| HPL #21 | Barn at the Oaks | Jamul/Dulzura |
| NRHP #78000747, HPL #5 | Julian/Robinson Hotel | Julian |
| HPL #2005-001 | Edwards Rock House | Julian |
| CHL #647 | Butterfield Overland Mail Route | Julian |
| CHL #412 | Julian | Julian |
| CHL #639 | Palm Springs | Julian |
| CHL #793 | San Felipe Valley and State Station | Julian |
| CHL #304 | Vallecito Stage Depot | Julian |
| CHL #425 | La Canada de los Coches Rancho | Lakeside |
| HPL #15 | Lakeside Church | Lakeside |
| HPL #2005-002 | Ferry Ranch House | Lakeside |
| HPL #2008-004 | Lindo Lake Boat House | Lakeside |
| CHL #482 | Camp Wright | North Mountain |
| NRHP #66000222, NHL, CHL #502 | Oak Grove Stage Station | North Mountain |

**Table 2.5-2 (Continued)**

| Designation[(1)] | Resource Name | CPA/Subregional Planning Area |
|---|---|---|
| HPL #2005-006 | Sickler Brothers Pala Mill | Pala/Pauma |
| CHL #243 | Asistencia de San Antonia de Pala | Pala/Pauma |
| NRHP #68000021, NHL, CHL #616 | Las Flores Asistencia | Pendleton/De Luz |
| NRHP #71000180, CHL #1026 | Santa Margarita Ranch House | Pendleton/De Luz |
| HLP # 2009-004 | Sharp Estate | Pine Valley |
| NRHP #94001161, HPL #8 | Ramona Town Hall | Ramona |
| NRHP #91000548, HPL #9 | Verlaque Adobe | Ramona |
| HPL #22 | Ramona Nuevo Memory Gardens Cemetery | Ramona |
| NRHP #78000749 | Ramona Castle | Ramona |
| HPL #2002-004 | John B. & Bessie Cushman House | San Dieguito |
| HPL #2002-005 | Rancho Santa Fe Land Improvement Co. Spec House #1 | San Dieguito |
| HPL #2002-006 | Frank William Joers House | San Dieguito |
| HPL #2002-007 | Frederick & Mary Allen/Boettiger House | San Dieguito |
| NRHP #91000943, HPL #2002-011 | George A.C. Christiancy Residence | San Dieguito |
| NRHP #91000944, HPL #2003-003 | Charles A. Shaffer Residence | San Dieguito |
| HPL #2004-003 | Tomlinson Residence | San Dieguito |
| HPL #2006-004 | Youngblood/Cliff May House | San Dieguito |
| HPL #2006-006 | Fleming/Rice RSF House | San Dieguito |
| HPL #2007-008 | Casa Blanca | San Dieguito |
| HLP # 2008-001 | Townley/Lilian Rice House | San Dieguito |
| HLP # 2009-001 | Osuna Adobe | San Dieguito |
| HLP # 2009-005 | Angel/McCutcheon House | San Dieguito |
| NRHP #93001018 | Baker, Pearl, Row House | San Dieguito |
| NRHP #93001520 | C.W. Harris Site (NRHP #93001520) | San Dieguito |
| NRHP #91000945 | Claude & Florence Terwilliger Residence | San Dieguito |
| NRHP #91000939 | Clotfelter, Reginald M. and Constance, Row House | San Dieguito |
| NRHP #98001552 | Ellis Bishop House Historic District | San Dieguito |
| NRHP #91000946 | Lilian J. Rice Residence | San Dieguito |
| NRHP #91000941 | Norman & Florence C. Carmichael Residence | San Dieguito |
| CHL #982 | Historic Planned Community of Rancho Santa Fe | San Dieguito |
| NRHP #91000940 | Rancho Santa Fe Land Improvement Offices | San Dieguito |
| NRHP #91000942 | Samuel Bingham Residence | San Dieguito |
| HPL #020 | Mataguay Historic District | Santa Ysabel |
| HPL #2008-003 | James Hubbell Complex | Santa Ysabel |
| HLP #018 | Thing Brothers Store (destroyed by 2007 fires) | Tecate |
| CHL #369 | Chapel of Santa Ysabel | North Mountain |
| HLP #2008-003 | James Hubbell Residence, Santa Ysabel | North Mountain |
| NRHP #66000227, NHL. CHL #626, HPL #004 | Bancroft Ranch House | Spring Valley |
| HPL #2002-002 | McRae-Albright Ranch house | Spring Valley |
| NRHP #92001268 | Kuchamaa | Mountain Empire |

**Table 2.5-2 (Continued)**

| Designation[(1)] | Resource Name | CPA/Subregional Planning Area |
|---|---|---|
| NRHP #91001748 | US Inspection Station--Tecate | Mountain Empire |
| NRHP #66000228, NHL, CHL #311 | Warner's Ranch | North Mountain |
| HPL #003 | Mt. Helix Nature Center | Valle de Oro |
| HPL #2002-008 | Reynolds/Warren House | Valle de Oro |
| HPL #2003-001 | Holmgren House | Valle de Oro |
| HPL #2003-002 | T.W. Lillie Residence | Valle de Oro |
| HPL #2004-002 | William Gross House | Valle de Oro |
| HPL #2005-004 | Bartlett House | Valle de Oro |
| HPL #2005-007 | Hare House | Valle de Oro |
| HPL #2005-008 | Glenn E. Murdock House | Valle de Oro |
| HPL #2005-009 | Marie Schumann-Heink & Hubert Gut Residence | Valle de Oro |
| HPL #2006-007 | C.W. Cadman Residence | Valle de Oro |
| HPL #2007-003 | Hindman Residence | Valle de Oro |
| HPL #2007-006 | Arthur & Lillian Gaynes House | Valle de Oro |
| HPL #2007-007 | R. King Kauffman House | Valle de Oro |
| HPL #2008-002 | Lee Packard/Ralph L. Frank House | Valle de Oro |
| HPL #2009-002 | Cornelius Residence | Valle de Oro |

(1) NRHP = National Register of Historic Places, NHL = National Historic Landmark (not numbered), CHL =California Historic Landmark, HPL = San Diego County Historic Property Listing

Sources: DPLU 2008i; NPS 2008b; OHP 2008

## Table 2.5-3. Fossils in the Coastal Plain Region

| Age | Location | Rock Unit/Type | Fossil Type |
|---|---|---|---|
| Late Jurassic (~140 my)[1] | Central portion | Sedimentary strata | Shells and molds of marine invertebrates |
| | Central portion | Santiago Peak Volcanics | Permineralized wood |
| Late Cretaceous (~75 my) | Northern portion | Sedimentary strata; Point Loma Formation | Marine invertebrates (i.e., clams, oysters, snails, ammonites, crabs), vertebrates (i.e., sharks, rays, bony fish), rarely dinosaurs that were transported into the ocean from land to the east (ankylosaur and hadrosaur) |
| Eocene (~40-48 my) | Camp Pendleton | Sedimentary strata | Marine and estuarine; terrestrial skulls, teeth, and bones; stem/leaf impressions |
| | Fairbanks Ranch, La Jolla Valley, 4S Ranch and Lakeside | Torrey Sandstone, Scripps Formation and Friars Formation | Shells and molds of marine, estuarine, and terrestrial invertebrates; skeletal remains (pond turtle, lizard, crocodile, snakes, mammals); leaf assemblages; permineralized wood |
| | Otay Mesa and Spring Valley | Mission Valley Formation and Sweetwater Formation | Shells and molds of marine invertebrates |
| | Bonita-Sweetwater and Spring Valley areas | Sweetwater Formation | Bones and teeth of terrestrial mammals |
| Oligocene (~25-35 my) | Proctor Valley and Bonita-Sweetwater | Sedimentary strata; Otay Formation | Terrestrial skeletal remains |
| Miocene (~5-7 my) | Camp Pendleton | San Mateo Formation | Skeletal remains (e.g., sharks, rays, bony fish, sea birds, fur seals, walrus, dolphin, porpoise) |
| Pliocene (~2-4 my) | Bonita- Sweetwater and Otay Mesa | Sedimentary Strata; San Diego Formation | Marine invertebrate and vertebrate (e.g., fish, sea birds, seal, walrus, river dolphin, porpoise, beluga whale, sperm whale, baleen whale, sea cow) |
| | Southern portion | San Diego Formation | Marine vertebrate skeletal remains |
| Pleistocene (~1 my) | Northern portion | Marine deposits | Shells of estuarine and marine invertebrates |
| | | River terrace deposits | Skulls, teeth, and/or bones (e.g., frog, salamander, turtle, lizard, coot, duck, grebe, quail, hawk, ground sloth, capybara, squirrel horse, tapir, camel, bison, deer, mammoth, mastodon) |
| Late Pleistocene (200-300,000 y) | Bonita-Sweetwater area | Sedimentary Strata | Terrestrial vertebrate skulls, teeth, and/or bones (e.g., passenger pigeon, song birds, sloth, mouse rabbit, dire wolf, horse, camel, deer, mastodon, mammoth) |

[1] million years

Source: DPLU 2007b; DPLU 2007i; DPLU 2009d

## Table 2.5-4. Fossils in the Peninsular Ranges Region

| Age | Location | Rock Unit/Type | Fossil Type |
|---|---|---|---|
| Miocene (~16 my) | Jacumba Valley | Table Mountain Gravels, Jacumba Volcanics | Terrestrial skeletal remains (e.g., pigs, camels, deer, cattle) |
| Pleistocene (~1 my – 10,000 y) | Warner Valley near Lake Henshaw | Pauba Formation and Temecula Arkose | Terrestrial fossils[(1)] (e.g., shrew, kangaroo rat, gopher, wolf, badger, bobcat, horse, camel, pronghorn, deer, mammoth, et al.) |
| | Pala/Pauma | Pala Conglomerate | Single isolated horse tooth |

[(1)] Although no fossils have been documented from the Warner Valley Pleistocene deposits, diverse assemblages are known from similar formations in Temecula Valley
Source: DPLU 2007b; DPLU 2007i; DPLU 2009d

## Table 2.5-5. Fossils in the Salton Trough Region

| Age | Location | Rock Unit/Type | Fossil Type |
|---|---|---|---|
| Miocene and Pliocene (~2-7 my) | Carrizo Badlands and Coyote Mountains | Sedimentary strata (Imperial Group) | Marine invertebrate fossils (e.g., branching brain corals, clams, oysters, scallopes, snails, crabs, barnacles, sea urchins, sand dollars, sea stars et al.), skeletal remains of marine vertebrates (sharks, rays, bony fish, walrus, dolphin, baleen whale, sea cow et al.) |
| Pliocene and Pleistocene (~5 my – 10,000 y) | Vallecito Badlands and Borrego Badlands | Sedimentary strata (Palm Spring Group) | Terrestrial vertebrates skulls, teeth, and/or bones (e.g., frog, tortoise, lizard, snake, condor, flamingo, ducks, owl, crow, shrew, mole, bat ground sloth, rabbit, wolf, coyote, fox, bear, raccoon, skunk, badger, jaguar, horse, tapir, camel, llama et al.) |

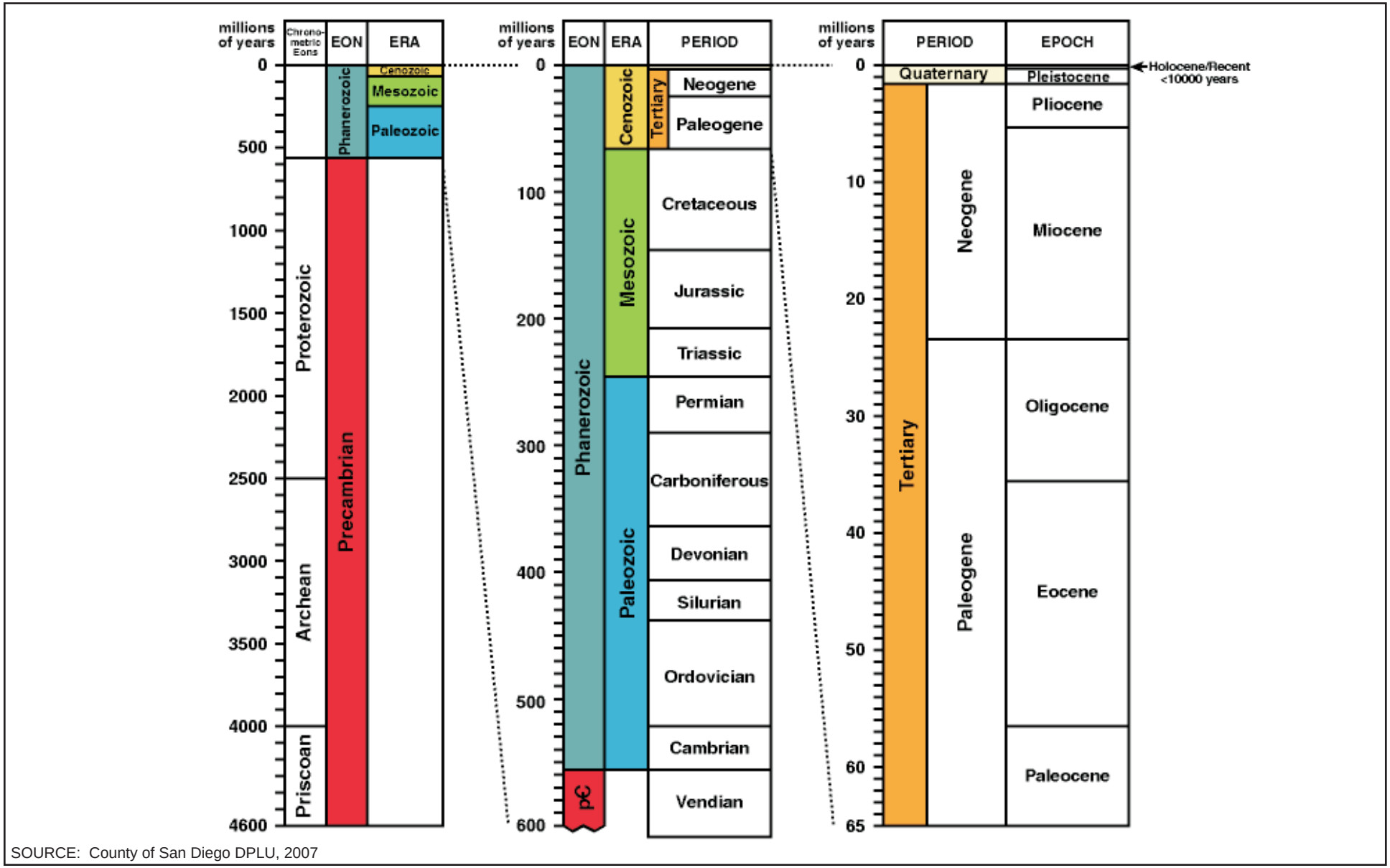
Source: DPLU 2007b; DPLU 2007i; DPLU 2009d

## Table 2.5-6. Formations with a High or Moderate Potential to Contain Paleontological Resources in San Diego County

| Coastal Plain Region | Salton Trough Region | Peninsular Ranges Region |
|---|---|---|
| Ardath Shale | Borrego Formation | Alluvial deposits of mountain valleys |
| Bay Point Formation | Brawley Formation | Older Quaternary alluvial fan deposits |
| Capistrano Formation | Canebrake Conglomerate | Pauba Formation |
| Delmar Formation | Imperial Group/Formation | Santiago Peak Volcanics[(1)] |
| Friars Formation | • Deguynos Formation | Table Mountain Gravels |
| Lusardi Formation | • Latrania Formation | Temecula Arkose |
| Lindavista/Mission Valley Formation | Later Quaternary alluvial fan deposits | |
| Monterey Formation | Ocotillo Conglomerate | |
| Otay Formation | Palm Spring Group/Formation | |
| Point Loma Formation | • Arroyo Diablo Formation | |
| San Diego Formation | • Canebrake Conglomerate | |
| San Mateo Formation | • Hueso Formation | |
| Santiago Peak Volcanics[(1)] | • Olla Formation | |
| Stadium Conglomerate | • Tapiado Claystone Formation | |
| Sweetwater Formation | Split Mountain Group/Formation | |
| Torrey Sandstone | • Alverson Volcanics | |
| San Onofre Breccia | • Elephant Trees Conglomerate | |
| Unnamed marine terrace deposits | | |
| Unnamed river terrace deposits | | |

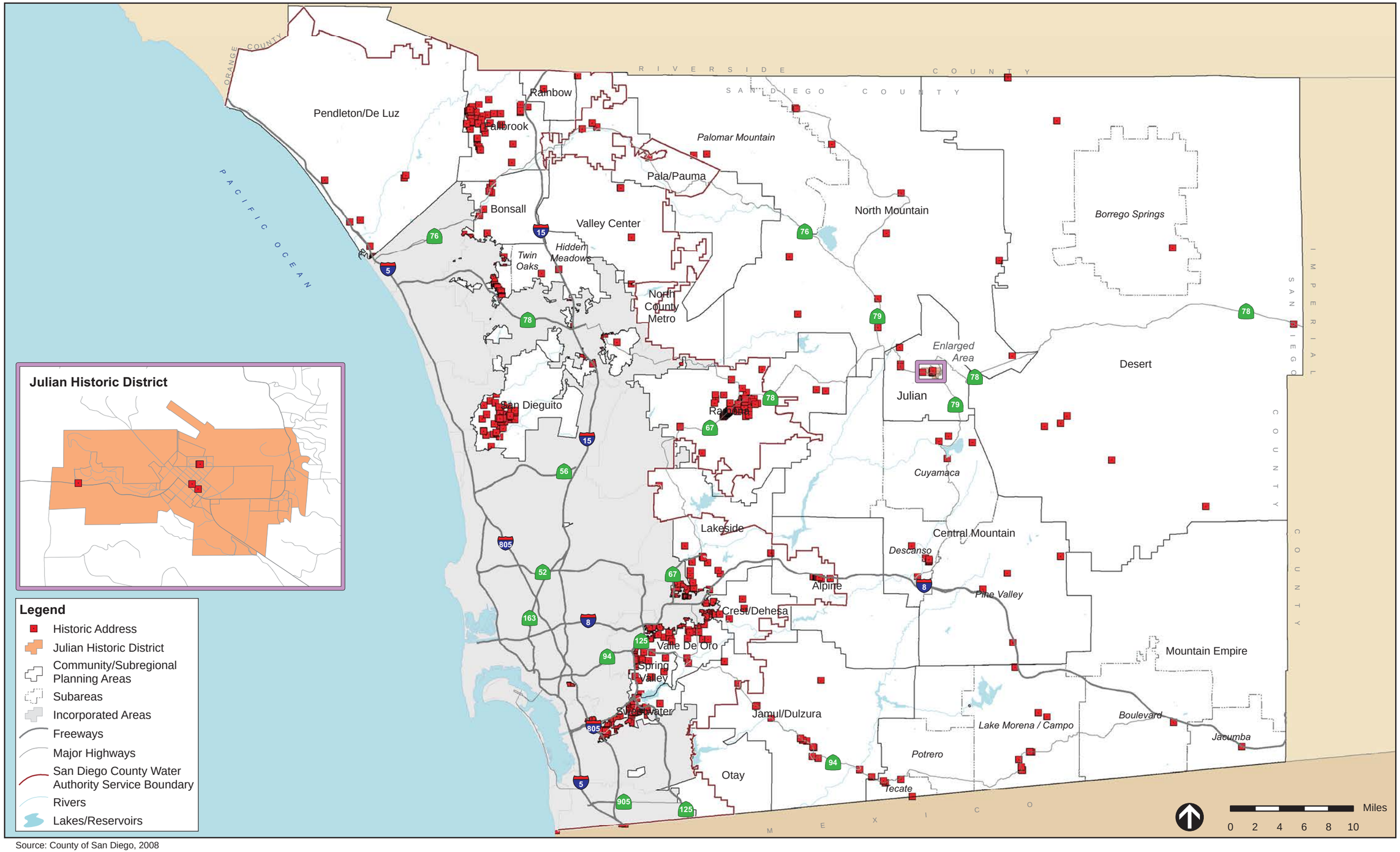
(1) Only the metasedimentary portion of the Santiago Peak Volcanics contains fossils. A qualified paleontologist may identify the Santiago Peak Volcanics formation on site as non-metasedimentary, which would result in no significant impact to paleontological resources, therefore, precluding the need for monitoring.

Source: County DPLU 2009d



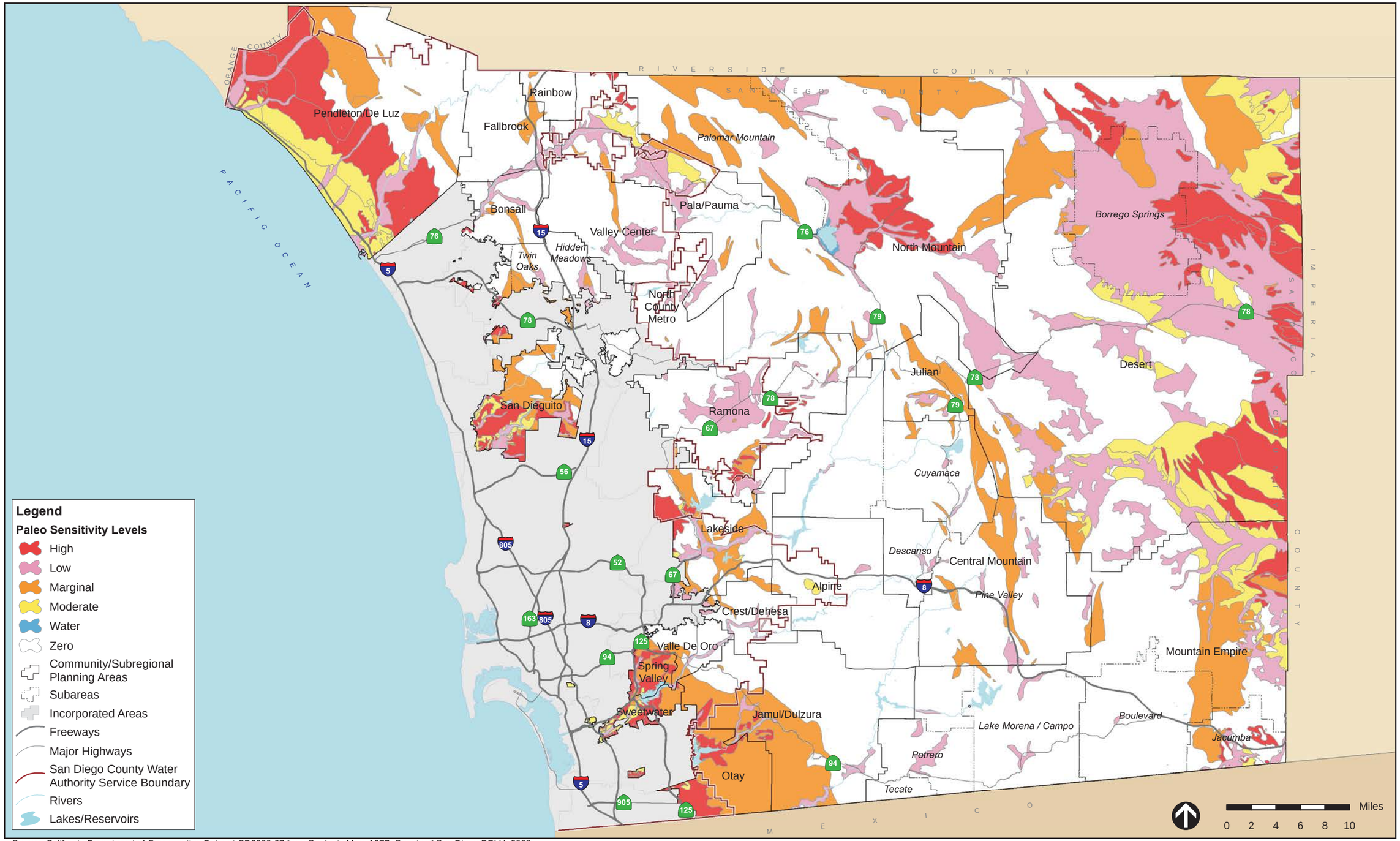

SOURCE: County of San Diego DPLU, 2007

**GEOLOGIC TIME SCALE** **FIGURE 2.5-1**




Source: County of San Diego, 2008

**HISTORIC RESOURCES AND JULIAN HISTORIC DISTRICT** **FIGURE 2.5-2**




Source: California Department of Conservation Dataset CD2000-07 from Geologic Map, 1977; County of San Diego DPLU, 2008

**PALEONTOLOGICAL SENSITIVITY MAP** **FIGURE 2.5-3**

# 2.6 Geology and Soils

This section of the EIR describes the existing geology, soils, and seismic conditions in San Diego County and analyzes the potential physical environmental impacts to people and property related to seismic hazards, underlying soil characteristics, slope stability, erosion, and excavation and export of soils. The General Plan Update would have the potential to expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death, from seismic related hazards. It would also have the potential to expose people or property to hazardous conditions associated with soil erosion, topsoil loss, exposed soils, or improper wastewater disposal. Potential impacts to unique geologic features are also discussed in this section. Potential impacts of soil conditions on air and water quality as a result of construction-related activities are discussed in Section 2.3, Air Quality, Section 2.8, Hydrology and Water Quality, and Section 2.17, Global Climate Change. This section is based on the review of the County of San Diego General Plan Conservation and Open Space Background Report (DPLU 2007b), County of San Diego General Plan Safety Element Background Report (DPLU 2007e), County of San Diego Guidelines for Determining Significance, Geologic Hazards (DPLU 2007k), and County of San Diego Guidelines for Determining Significance, Unique Geology (DPLU 2007q).

A summary of the geology and soils impacts identified in Section 2.6.3 is provided below.

**Geology and Soils Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Exposure to Seismic-Related Hazards | Less Than Significant | Less Than Significant | Less Than Significant |
| 2 | Soil Erosion or Topsoil Loss | Less Than Significant | Less Than Significant | Less Than Significant |
| 3 | Soil Stability | Less Than Significant | Less Than Significant | Less Than Significant |
| 4 | Expansive Soils | Less Than Significant | Less Than Significant | Less Than Significant |
| 5 | Waste Water Disposal Systems | Less Than Significant | Less Than Significant | Less Than Significant |
| 6 | Unique Geologic Features | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.6.1 Existing Conditions

Natural geologic processes that represent an existing or future hazard to life, health, or property are called geologic hazards. Natural geologic hazards that affect people and property in San Diego County include earthquakes (which can cause surface fault rupture, ground shaking, and liquefaction), expansive soils, weathering, and mass wasting phenomena such as landslides or rockfalls. San Diego County contains active faults, steep topography, and other geological characteristics that pose public safety concerns and constrain physical development.

### *2.6.1.1 General Geologic Setting*

San Diego County is located along the Pacific Rim, an area characterized by island arcs with subduction zones forming mountain ranges and deep oceanic trenches, active volcanoes, and earthquakes. The USGS defines a subduction zone as any area where one lithospheric plate

sinks under another (USGS 2008c). This occurs when plates move toward each other, or converge. During the Mesozoic Era subduction of the ancient oceanic plate under the continental plate created an archipelago of volcanic islands in the San Diego area. The heat caused by the subduction produced massive volumes of magma that either erupted at the surface forming volcanic rocks or congealed deep in the Earth's crust to form plutonic rocks (e.g., granite). This resulted in the creation of the plutonic rocks now exposed in the mountainous central part of the County. Subsequent heating also metamorphosed the volcanic and sedimentary rocks of the arc as well as the older Paleozoic rocks, forming the foothills of the western part of the ranges. Continuing subduction of the oceanic plate under the continent caused uplifting and erosion that unroofed the deeply buried plutonic rocks to form a steep and rugged, mountainous coastline. Younger Mesozoic and Cenozoic sedimentary rocks have buried these older rocks west of the mountains, while a thick accumulation of Cenozoic sedimentary rocks including layers of lava and ash has filled the basins east of the mountains.

During the Cenozoic Era, a tectonic spreading center began to separate the southwestern part of North America, including San Diego County, from the rest of the continent. The spreading center formed the Gulf of California and the Salton Trough Region. The slow northwestward movement of San Diego County caused intermittent uplift with subsequent erosion, as well as down warping with subsequent deposition of thick accumulations of sediments. Recorded in these Cenozoic sedimentary rocks are conditions of higher rainfall and subtropical climates that supported coastal rain forests with exotic faunas and floras, periods of extreme aridity and volcanism, sea level fluctuations (oceanic inundations and retreats), a great Eocene river and delta, and the formation of new seaways.

As a result of this geologic history, four general rock types are found within the County: 1) Cretaceous Age crystalline and Upper Jurassic metavolcanics; 2) Mesozoic Age metamorphic rocks; 3) Tertiary Age sedimentary rocks; and 4) recent alluvium. Cretaceous Age crystalline rocks, including granites, diorites, and gabbros and Upper Jurassic metavolcanics underlie most of the mountainous terrain in the central portion of the County. These rocks are associated with the Peninsular Ranges batholith of southern California and Baja California. Mesozoic Age metamorphic rocks include marble, schist, and gneiss outcrops that are found in the western foothills and mountains of the Peninsular Ranges and in the desert east of the mountains. Tertiary Age sedimentary rocks include sandstone, conglomerate, and mudstone and are found in the western portion of the County, as well as in the eastern portion of the desert basin. Deposits of recent alluvium, including sand, gravel, silt, and clay are found in river and stream valleys, around lagoons, in intermountain valleys, and in the desert basins.

Additionally, the Natural Resources Inventory (NRI) of San Diego County identified 67 unique geologic features in the entire County, primarily for scientific research purposes (DPLU 2007q). The NRI was prepared by the County in the early 1970s, and has subsequently been updated. The locations of the features were obtained from published reports and interviews with geologists and paleontologists who did field work in San Diego County up to the early 1970s. The NRI includes stratigraphic formations, igneous rocks, fossil locations, and structural features. The County has a focused list of 19 features located in the unincorporated County. This list is provided in Table 2.6-1 and includes reasoning for each feature's uniqueness. What makes a geologic feature unique can vary considerably. A unique feature may be the best example of its kind locally or regionally, it may illustrate a geologic principle, it may provide a key piece of geologic information, it may be the "type locality" of a fossil or formation, or it may have high aesthetic appeal. Unique geologic features may be exposed or created from natural weathering and erosion processes or from man-made excavations. Geologic formations, their

structure, and the fossils within them provide information about past environments. Therefore, rocks provide aesthetic, scientific, educational, and recreational value. They also allow us to develop our knowledge of history beyond the written record.

San Diego County has three distinctive geographic regions that are, from west to east:

- The low-lying Coastal Plain,
- The mountainous Peninsular Range, and
- The Desert Basin (Salton Trough).

**The Coastal Plain**

The Coastal Plain ranges in elevation from sea level to approximately 600 feet AMSL and lies mostly within incorporated cities in San Diego County, with the exception of the lower elevation foothills of the San Dieguito CPA.

The Coastal Plain Region is an area characterized by interbedded marine and nonmarine sedimentary rock units deposited over the last 75 million years. The sedimentary rocks overlie a buried topography of plutonic crystalline rocks typically composed of granite or granodiorite. Many of the level surfaces in the coastal areas, including most of the mesa tops and coastal benches, are elevated marine terraces, and these, as well as the broad, level floodplains of river valleys, are characteristic features of the Coastal Plain Region. Many sedimentary units are within the Coastal Plain Region, including:

- Unnamed Quaternary River Terrace deposits representing the sediments of ancient river courses;
- Lagoonal and non-marine terrace deposits of the Bay Point Formation and marine and non-marine deposits of the Lindavista Formation;
- Marine deposits of the San Diego Formation;
- Fluvial sedimentary rocks of the Otay Formation;
- Non-marine and lagoonal sedimentary rocks of the Friars Formation and member C of the Santiago Formation; and
- Other formations, including the Capistrano, San Mateo, San Onofre Breccia, Monterey, Sweetwater, Mission Valley, Stadium Conglomerate, Ardath Shale, Torrey Sandstone, Delmar, Point Loma, and Lusardi Formations.

**Peninsular Range**

The lower Peninsular Range Region in San Diego County is made up of foothills that span in elevation from 600 to 2,000 feet AMSL. It is characterized by rolling to hilly uplands that contain frequent narrow, winding valleys. This area is traversed by several rivers as well as a number of intermittent drainages. The foothills are developed with various urban, suburban, and rural land uses, including the communities of Bonsall, Fallbrook, Ramona, Lakeside, Crest/Dehesa, Valle de Oro, Spring Valley, and Otay.

The higher elevations of 2,000 to 6,000 feet AMSL are dominated by steep mountains typically covered with granitic boulders and chaparral vegetation on the western slopes, evergreen and

temperate forests at and near the top, and desert chaparral on the eastern slopes. The largely undeveloped mountain areas of San Diego County surround scattered rural communities, including Alpine, Pine Valley, Jamul/Dulzura, Campo, and Julian.

The Peninsular Ranges Region is primarily underlain by plutonic igneous rocks that formed from the cooling of molten magmas deep within the earth's crust. These magmas were generated during subduction of an oceanic crustal plate that was converging on the North American Plate between 120 and 90 million years ago (mya). Over this long period of time, extensive masses of plutonic rocks accumulated within the crust. Intense heat associated with these plutonic intrusions metamorphosed the ancient sedimentary rocks that were already there. These metasediments are now preserved in the Peninsular Ranges Region as marbles, slates, schist, quartzites, and gneiss. Younger under-formed sedimentary rocks occur in various areas of the Peninsular Ranges Region. The Peninsular Ranges Region contains Quaternary alluvial and alluvial fan deposits in many of the mountain valleys. Some of the more southern mountain valleys contain Quaternary peat deposits.

Sedimentary units in the Peninsular Ranges Region include:

- Sedimentary rock (sandstone, siltstone and conglomerate), including the Pauba Formation and the Temecula Arkose, that have filled the Warner Basin with up to 1,000 feet of upper Pliocene and lower to upper Pleistocene sediments;
- Table Mountain Gravels; and
- Jurassic metasedimentary rocks mapped as the Santiago Peak Volcanics.

**The Desert Basin (Salton Trough)**

The far eastern portion of San Diego County is a desert climate. Elevations range from sea level to 3,000 feet AMSL and the terrain includes mountains, alluvial fans, and desert floor. Most of the region is within the Anza-Borrego Desert State Park. Development within this area includes the small desert communities of Borrego Springs, Ocotillo Wells, and Shelter Valley.

The desert is undergoing active deformation related to faulting along the San Jacinto and Elsinore fault zones, which are related to the San Andreas Fault system, and described below. Since the early Miocene (~24 mya), the Salton Trough has been filling with sediments, which are now up to five miles thick. The major source of the sediments on the San Diego County side of the trough is erosion of the Peninsular Ranges. Dry lake beds, filled with sediments, are notable features of the region.

Sedimentary units in the Salton Trough Region include:

- The Ocotillo Conglomerate and the Borrego Formation;
- Imperial Group;
- The Palm Spring Group consisting of five formations (Arroyo Diablo Formation, Olla Formation, Tapiado Claystone, Hueso Formation, and Canebrake Conglomerate);
- Other formations, including the Brawley and Split Mountain Formations, the Canebrake Conglomerate, and the Alverson Volcanics; and
- Later Quaternary alluvium, and older terraces, fanglomerates, and valley-fill alluvium.

### *2.6.1.2 Faults and Seismicity*

**Regional Seismic Setting**

The faulting and seismicity of southern California is dominated by the compressionary regime associated with the "Big Bend" of the San Andreas Fault Zone. The San Andreas Fault Zone separates two of the major tectonic plates that comprise the earth's crust. West of the San Andreas Fault Zone lies the Pacific Plate which is moving in a northwesterly direction relative to the North American Plate, which is located east of the San Andreas Fault Zone. This relative movement between the two plates is the driving force of fault ruptures on the west coast of California. The San Andreas Fault generally trends northwest to southeast and is located to the northeast of San Diego County. A series of sub-parallel faults are located to the west of the San Andreas Fault Zone including the active San Jacinto, Elsinore, and Rose Canyon Fault Zones which each traverse through San Diego County. North of the Transverse Ranges Province, located generally between Santa Barbara and Joshua Tree, the San Andreas fault trends more in an east to west direction (the Big Bend), causing the fault's right-lateral strike-slip movement to produce north-south compression between the two plates. This compression has produced rapid uplift of many of the mountain ranges in southern California. This crustal shortening is accommodated by faulting (mainly reverse faulting) and causes a large potential for seismicity throughout most of southern California. Faults of the northern Peninsular Ranges Province generally reflect reverse as well as strike-slip faulting patterns, since the province is in a transitionary position between areas dominated by strike-slip movement and by compression.

**Magnitude Scales**

The strength of an earthquake is generally expressed in two ways: magnitude and intensity. The magnitude is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. An earthquake's magnitude is expressed in whole numbers and decimals (such as 6.8). The intensity at a specific location is a measure that depends on the effects of the earthquake on people or buildings. Intensity is expressed in Roman Numerals or whole numbers (example: VI or 6). Although there is only one magnitude for a specific earthquake, there may be many values of intensity (damage) for that earthquake at different sites.

Several magnitude scales have been developed by seismologists. The original is the Richter magnitude, developed in 1932 by the late Dr. Charles F. Richter who was a professor at the California Institute of Technology. The Richter scale quantifies the magnitude and intensity of an earthquake through logarithmic equations. The most commonly used scale today is the Moment magnitude (Mw) scale, jointly developed in 1978 by Dr. Thomas C. Hanks of the USGS and Dr. Hiroo Kanamori, a professor at CalTech. Moment magnitude is related to the physical size of fault rupture and the movement (displacement) across the fault, and as such is a more uniform measure of the strength of an earthquake.

Another measure of earthquake size is seismic moment. The seismic moment determines the energy that can be radiated by an earthquake and hence the seismogram recorded by a modern seismograph. The moment magnitude of an earthquake is defined relative to the seismic moment for that event.

It is important to recognize that earthquake magnitude varies logarithmically with the wave amplitude or seismic moment recorded by a seismograph. Each whole number step in magnitude represents an increase of ten times in the amplitude of the recorded seismic waves, and the energy release increases by a factor of about 31 times. The size of the fault rupture and the fault's displacement (movement) also increase logarithmically with magnitude.

Magnitude scales have no fixed maximum or minimum. Observations have placed the largest recorded earthquake (off-shore from Chile in 1960) at moment magnitude 9.6 and the smallest at -3. Earthquakes with magnitudes smaller than about 2 are called microearthquakes.

Magnitudes are not used to directly estimate damage. An earthquake in a densely populated area, which results in many deaths and considerable damage, may have the same magnitude as an earthquake that occurs in a barren, remote area that does nothing more than frighten the wildlife.

**Earthquake Intensity**

The first scale to reflect earthquake intensities (damage) was developed by de Rossi of Italy and Forel of Switzerland in the 1880s and is known as the Rossi-Forel Intensity scale. This scale, with values from I to X, was used for about two decades. A need for a more refined scale increased with the advancement of the science of seismology. In 1902, the Italian seismologist, Mercalli, devised a new scale on a I to XII range. The Mercalli intensity scale was modified in 1931 by American seismologists Harry O. Wood and Frank Neumann to take into account modern structural features. Table 2.6-2 lists the measurements/values in the Modified Mercalli Intensity (MMI) scale.

The MMI scale measures the intensity of an earthquake's effects in a given locality, and is perhaps much more meaningful to the layperson because it is based on observations of earthquake effects at specific places. It should be noted that because the data used for assigning intensities are obtained from direct accounts of the earthquake's effects at numerous towns, considerable time (weeks to months) is sometimes needed before an intensity map can be assembled for a particular earthquake.

On the MMI scale, values range from I to XII. The most commonly used adaptation covers the range of intensities from the conditions of I, not felt except by very few, favorably situated, to XII, damage total, lines of sight disturbed, objects thrown into the air. While an earthquake has only one magnitude, it can have much intensity, which typically decreases with distance from the epicenter.

It is difficult to compare magnitude and intensity because intensity is linked with the particular ground and structural conditions of a given area, as well as distance from the earthquake epicenter, while magnitude depends on the energy released by earthquake faulting. However, there is an approximate relation between magnitude and maximum expected intensity close to the epicenter. Table 2.6-3 compares magnitude and intensity values. The areas shaken at or above a given intensity increase logarithmically with earthquake magnitude.

**Local Faults and Seismicity**

As shown in Figure 2.6-1, numerous faults have been mapped in San Diego County. Each fault is classified based on its most recent movement as indicated below:

- Historic (movement within the last 200 years)
- Holocene (movement within the past 11,000 years)
- Late-Quaternary (movement within the past 700,000 years)
- Quaternary (age undifferentiated within the past 1.6 million years)
- Pre-Quaternary (movement older than 1.6 million years)

Several major active faults and fault zones are present within San Diego County, as described below in Table 2.6-4 and shown on Figure 2.6-1. These active fault zones are San Jacinto Fault Zone, including Coyote Creek Fault; Elsinore Fault Zone and the nearby Earthquake Valley Fault; and the Rose Canyon Fault Zone, including a series of unnamed faults trending from downtown San Diego across San Diego Bay to the City of Coronado. The San Andreas Fault Zone is not located within San Diego County, but is included in this discussion because it is a major fault zone with a length of roughly 900-miles in California. A portion of the fault zone traverses through Imperial County, adjacent to San Diego County.

### *2.6.1.3 Seismic Hazards*

Earthquake-related geologic hazards pose a significant threat to San Diego County and can impact extensive regions of land. Earthquakes can produce fault rupture and strong ground shaking, and can trigger landslides, rockfalls, soil liquefaction, tsunamis, and seiches. In turn, these geologic hazards can lead to other hazards such as fires, dam failures, and toxic chemical releases.

Primary effects of earthquakes include violent ground motion, and sometimes permanent displacement of land associated with surface rupture. Earthquakes can snap and uproot trees, or knock people to the ground. They can also shear or collapse large buildings, bridges, dams, tunnels, pipelines and other rigid structures, as well as damage transportation systems, such as highways, railroads and airports.

Secondary effects of earthquakes include near-term phenomena such as liquefaction, landslides, fires, tsunamis, seiches, and floods. Long-term effects associated with earthquakes include phenomena such as regional subsidence or emergence of landmasses and regional changes in groundwater levels.

The number of people potentially exposed to various hazards in the unincorporated areas of the County was identified in the Multi-jurisdictional Hazard Mitigation Plan, San Diego, CA (URS 2004). The analysis demonstrates that earthquake-related hazards pose a significant threat to unincorporated County residents. When groundshaking, liquefaction and landslide hazards are combined, it is estimated approximately 410,000 people have the potential to be exposed to earthquake hazards in the urbanized areas of the County, while 33,000 people have the potential to be exposed to this hazard in the rural areas.

## Fault Rupture

During earthquakes, the ground can rupture at or below the surface. Ground rupture occurs when two lithospheric plates heave past each other, sending waves of motion across the earth. The lithosphere is approximately 75 miles thick and consists of the upper continental and oceanic crusts and the rigid mantle layer that is directly beneath the crust. Earthquakes can cause large vertical and/or horizontal displacement of the ground along the fault. Ground rupture can completely demolish structures by rupturing foundations or by tilting foundation slabs and walls, as well as damage buried and above ground utilities. Drinking water can be lost, and the loss of water lines or water pressure can affect emergency services, including fire fighting ability. Research of historical earthquakes has shown that, although only a few structures have been ripped apart by fault rupture, this hazard can produce severe damage to structures built across active fault lines.

In San Diego County, the preceding century of relative stillness led to a misconception that there is no serious earthquake hazard in the County. However, in 1992, the Joshua Tree and Landers earthquakes together ruptured the ground for a total of nearly 60 miles. Rupture from the Landers earthquake alone was 40 miles, and the maximum observed fault movement was 20 feet. Rupture occurred on five different faults in this earthquake. These five were the Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock faults. Before this, the scientific community had thought that fault rupture was confined to single faults or even to individual segments of faults. The northeastern corner of San Diego County is 45 miles south of the Landers epicenter, and downtown San Diego is 70 miles away from it.

### Alquist-Priolo (AP) Earthquake Fault Zones

In 1972, the state passed the AP Earthquake Zoning Act to help identify areas subject to severe ground shaking. It also regulated the siting of buildings with regard to surface fault rupture following the 1971 San Fernando Earthquake. Earthquake faults are categorized as active, potentially active, and inactive. A fault is classified as active if it is included as an AP Earthquake Fault Zone (movement within the past 11,000 years). The purpose of this Act is to prohibit the placement of most structures for human occupancy across the traces of active faults; thereby mitigating the hazard of fault ruptures. AP Zones serve as an official notification of the probability of ground rupture for future earthquakes. Where such zones are designated, no building may be constructed on the trace of the fault.

The AP Zones that the State of California has designated along active faults in the unincorporated portion of the San Diego County are:

- Elsinore Fault: North of Pala, Palomar Mountain, Pauma Valley, Lake Henshaw, Julian, Banner Canyon, Mason Valley, Vallecito Valley, and Carrizo Valley.
- Earthquake Valley Fault: San Felipe Valley and Sentenac Canyon.
- San Jacinto Zone - Coyote Creek Fault: Borrego Valley and Ocotillo Wells.

Additionally, many of the County's faults are classified as potentially active or inactive. Faults showing movement within 1.6 million years (Quaternary) are considered potentially active, and faults showing movement greater than 1.6 million years (Pre-quaternary) as inactive. As new geologic information becomes available, the County may also zone other faults as active, if necessary.

The unincorporated County's more urbanized areas are located away from active fault zones, which are the San Jacinto Fault and Elsinore Fault Zones, the two predominant faults in the unincorporated County. However, these earthquake faults are located near three of the County's rural communities: Borrego Springs, Julian, and Pala/Pauma Valley. The date of the last major event to occur on each of these two faults, and the Rose Canyon Fault, which is located in the City of San Diego, is presented in Table 2.6-5. This table also estimates the maximum magnitude of a future event on each fault. These three faults are discussed in greater detail below.

### *Elsinore Fault Zone*

The Elsinore fault zone crosses eastern San Diego County on an approximately 124-mile path from the Mexican border to the northern end of the Santa Ana Mountains in Los Angeles County. Near its northwestern end in Riverside County, the fault splits into the Whittier and Chino faults. The maximum probable earthquake for the Elsinore fault zone is estimated at a magnitude of 6.5 to 7.3 on the Richter scale, with a recurrence interval of 60 years. The largest historical earthquake on record on the Elsinore fault is a magnitude 6.0 event in 1910. No surface rupture was found resulting from this earthquake. Within this fault zone, the State has designated areas near Pala, Palomar Mountain, Pauma Valley, Lake Henshaw, Julian, Banner Canyon, Mason Valley, Vallecito Valley, and Carrizo Valley as Fault Rupture Zones. In addition, the faults that flank the Agua Tibia Mountains are areas of potential seismic activity.

An approximately 12-mile wide zone on the northeast flank of the Elsinore fault is occupied by four major fault zones. These are the Agua Tibia-Earthquake Valley zone, Aguanga-San Felipe zone, Agua Caliente fault zone, and the Hot Springs fault zone. Of these zones, only the Agua Tibia-Earthquake Valley fault has shown surface displacement during the last 11,000 years. Therefore, this fault zone is classified as a State designated earthquake Fault Rupture Zone (an area of ground ruptures due to fault activities within the past 11,000 years).

### *San Jacinto Fault Zone*

The San Jacinto fault zone is a complex fault system that is approximately 6 miles wide and 155 miles long, extending from its junction with the San Andreas zone in the San Gabriel Mountains to the northern edge of the Gulf of California. This zone, which is characterized by straightness, continuity, and high seismicity, is the most active of the southern California Plate boundary faults. It has had 10 earthquakes of magnitude 6.0 or greater since 1890. The San Jacinto fault trends from the northwest to the southeast across the northeastern corner of the County, where its zone includes the Coyote Creek, Clark, San Felipe Hills, Borrego Mountain, and many smaller, unnamed Quaternary faults. Within this zone, the State has designated the Coyote Creek fault as a Fault Rupture Zone. In addition, the Coyote Mountain fault and other adjacent young faults are areas of potential seismic activity.

### *Rose Canyon Fault Zone*

The Rose Canyon fault zone is about 19 miles in length and extends through the City of San Diego, La Jolla and Linda Vista communities. It has a slip rate category of approximately 1.1 mm/yr. According to the California Department of Conservation (CDOC), no historic rupture has occurred on this fault; however, data suggests that there have been a minimum of three surface fault-rupture events in the last approximately 8,100 years. The last large earthquake is estimated to have occurred between 225 and 500 years ago. The faults in this zone typically dip to the east.

### County Special Studies Zones

The AP Act provides for a city or county to establish more restrictive policies than those within the AP Act, if desired. "Special Study Zones," which are late-Quaternary faults mapped by the California Division of Mines and Geology (DMG), have been designated by the County. Late-Quaternary faults (movement during the past 700,000 years) were mapped based on geomorphic evidence similar to that of Holocene faults except that tectonic features are less distinct. As indicated by the DMG, these faults may be younger, but the lack of younger overlying deposits precludes more accurate age classification. Traces of faults within "Special Study Zones" are treated by the County as active unless a fault investigation can prove otherwise. Figure 2.6-2 depicts Special Study Zones within the unincorporated portion of the County.

### Ground Shaking

Ground shaking is the earthquake effect that produces the vast majority of damage. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Earthquakes, or earthquake induced landslides, can cause damage near and far from fault lines. The potential damage to public and private buildings and infrastructure can threaten public safety and result in significant economic loss. Ground shaking is the most common effect of earthquakes that adversely affects people, animals, and constructed improvements. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Seismic waves propagating through the earth's crust are responsible for the ground vibrations normally felt during an earthquake. Seismic waves can vibrate in any direction, and at different frequencies, depending on the frequency content of the earthquake rupture mechanism and the path and material through which the waves are propagating. The earthquake rupture mechanism is the distance from the earthquake source, or epicenter, to an affected site.

The California Building Code (CBC) defines different Seismic Design Categories based on building occupancy type and the severity of the probable earthquake ground motion at the site. There are six Seismic Design Categories and designated as Categories A through F, with Category A having the least seismic potential and Category F having the highest seismic potential. All of San Diego County is located within Seismic Design Categories E and F.

### Liquefaction

Liquefaction occurs primarily in saturated, loose, fine to medium-grained soils in areas where the groundwater table is generally 50 feet or less below the surface. When these sediments are shaken during an earthquake, a sudden increase in pore water pressure causes the soils to lose strength and behave as a liquid. In general, three types of lateral ground displacement are generated from liquefaction: 1) flow failure, which generally occurs on steeper slopes; 2) lateral spread, which generally occurs on gentle slopes; and 3) ground oscillation, which occurs on relatively flat ground. In addition, surface improvements on liquefiable areas may be prone to settlement and related damage in the event of a large earthquake on a regionally active fault. The primary factors that control the type of failure that is induced by liquefaction (if any) include slope, and the density, continuity, and depth of the liquefiable layer.

Adverse effects of liquefaction include:

- Loss of bearing strength so that the ground loses its ability to support structures. Structures can be left leaning or they can collapse.
- Lateral spreading where the ground can slide on a buried liquefied layer. Buildings, roads, pipelines and other structures can be damaged.
- Sand boils of sand-laden water can be ejected from a buried liquefied layer and erupt at the surface. The surrounding ground often fractures and settles.
- Ground oscillation so that the surface layer, riding on a buried liquefied layer, is thrown back and forth by the shaking and can be severely deformed. Land containing walkways, roads, highways, and structures can all be shaken, broken, damaged and/or destroyed.
- Flotation to the surface of light-weight structures that are buried in the ground (e.g., pipelines, sewers, and nearly empty fuel tanks).
- Settlement when liquefied ground re-consolidates following an earthquake.

Liquefaction is not known to have occurred historically in San Diego County, although liquefaction has occurred in the Imperial Valley in response to earthquakes with a magnitude of 6 or higher. Historically, seismic shaking levels within the County have not been sufficient to trigger liquefaction. However, portions of the unincorporated County would be susceptible to liquefaction from ground shaking during larger seismic events. During an earthquake, the solid particles in a shallow sedimentary layer tend to decrease in volume due to ground shaking, causing a reduction in soil strength. Liquefaction only occurs if the sediment is: 1) sand sized; 2) loosely consolidated; 3) saturated; and 4) subject to vibration. Liquefaction occurs primarily in saturated, loosely consolidated, and fine to medium-grained sandy soils in areas where the groundwater table is generally 50 feet or less below the surface and is subject to vibration. Other important factors contributing to liquefaction include the earthquake's magnitude and the duration of the shaking.

Within the County, there may be a potential for liquefaction in areas with loose sandy soils combined with a shallow groundwater table, which typically are located in alluvial river valleys/basins and floodplains. The extent of risk areas within the County with a potential for liquefaction hazard was mapped in the Multi-Jurisdictional Hazard Mitigation Plan, San Diego, CA (URS 2004).

Figure 2.6-3 depicts areas with the potential for liquefaction in the County, which includes the data from above and also includes mapped Quaternary Alluvium and hydric soils (soils that are often saturated and/or characteristic of wetlands). Table 2.6-6 provides a list of hydric soils in San Diego County based on the USDA Soil Survey categories.

Primary areas for potential liquefaction hazard include the lower San Dieguito, Sweetwater, and San Luis Rey River Valleys, Jacumba, Borrego Valley near the Borrego Sink, and parts of Ramona CPA.

## Landslides

A landslide is the down slope movement of soil and/or rock. Landslides can range in speed from very rapid to an imperceptible slow creep. Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrate slopes with unstable material. Boulder-strewn hillsides can pose a boulder-rolling hazard from ground shaking, blasting or a gradual loosening of their contact with the surface. The likelihood of a landslide depends on an area's geologic formations, topography, ground shaking potential, and influences of man. Improper or excessive grading can increase the probability of a landslide. Land alterations such as excavation, filling, removing of vegetative cover, and introducing the concentration of water from drainage, irrigation or septic systems may contribute to the instability of a slope and increase the likelihood of a landslide. Undercutting support at the base of a slope, or adding too much weight to the slope, can also produce a landslide.

Significant landslides have occurred within incorporated portions of the County along coastal bluffs and in other areas. Previous landslides and landslide-prone sedimentary formations are mostly located in the western portion of the unincorporated County. Landslides have also occurred in the granitic terrain in the eastern portion of the County, although they are less prevalent. Reactivations of existing landslides can be triggered by situations such as heavy rainfall or irrigation, seismic shaking, and/or grading. The entire County was screened to profile the risk of landslides in the Multi-jurisdictional Hazard Mitigation Plan, San Diego County (URS 2004). The Multi-jurisdictional Hazard Mitigation Plan estimated high and moderate risk assessments for urban and rural areas of the unincorporated County. The western portion of the County (encompassing primarily incorporated jurisdictions) is based on soil-slip susceptibility data provided by USGS, while the eastern portion of the county shows landslide susceptibility based on the Federal Emergency Management Agency (FEMA) natural hazard GIS database (HAZUS). The County also identifies gabbroic soils on slopes greater than 15 percent in grade as slide-prone material. Figure 2.6-4 combines data from the sources listed below to identify unincorporated areas having the highest landslide risk potential:

- Steep Slopes (greater than 25 percent)
- Soil Series Data (SANDAG based on USGS 1970s series)
- Soil-slip susceptibility from USGS
- Division of Mines and Geology Landslide Hazard Zone Maps
- Gabbroic soils on slopes steeper than 15 percent in grade

The analysis indicated that significantly fewer people are exposed to rain-induced landslide hazards than the seismically induced landslide hazards described above. The Multi-jurisdictional Hazard Mitigation Plan (URS 2004) estimated that high-risk landslide areas could potentially affect only 11,000 people in the urbanized areas, 3,000 people in the rural areas, and less than 100 commercial buildings and other critical facilities. Moderate-risk landslide areas could potentially affect many more people, but are still not comparable to numbers of people potentially exposed to earthquake hazards.

An example of a typical adverse effect of landslides is the loss of human-made structures, utilities and roads and/or loss of life by a landslide or rockfall that originated on an unstable area upslope of a home. Adverse effects vary with the size or volume of individual landslides/rockfall events and density of development below. The magnitude of such events can range from

movement as small as a single boulder to massive movement of millions of cubic yards of material.

## Subsidence and Settlement

Subsidence, which can be caused by groundwater depletion, seismic activity, and other factors, refers to elevation changes of the land whether slow or sudden. Subsidence can cause a variety of problems including broken utility lines, blocked drainage, or distorted property boundaries and survey lines. According to The Multi-jurisdictional Hazard Mitigation Plan (URS 2004), the underlying geologic formations in the County are mostly granitic which have a very low potential of subsidence. Borrego Valley has recorded minor subsidence that has not caused damage. This subsidence was caused by groundwater depletion (Van Zandt 2004).

## Expansive Soils

Certain types of clay soils expand when they are saturated and shrink when dried. These are called expansive soils, and can pose a threat to the integrity of structures built on them without proper engineering. Expansive soils are derived primarily from weathering of feldspar minerals and volcanic ash. As shown in Figure 2.6-5, areas of highly expansive soils within San Diego County occur predominately in the coastal plains, an area of dissected marine terraces and uplands. They can also be found in valleys and on slopes in the foothills and mountains of the Peninsular Ranges Region and, to a lesser extent, in the desert. In the foothills, soils having a high expansion potential occur near Ramona, Escondido, Rainbow, and areas northeast of Vista. Other areas having high shrink-swell soils are Guatay and Pine Valley.

The expansion and contraction of the soil varies with the soil moisture content (wet or dry), and can be aggravated by the way a property is maintained or irrigated. Human activities can increase the moisture content of the soils, and the threat of expansive soil damage. For example, a subdivision of homes that continually irrigates the landscaping or removes significant amounts of native vegetation could create this condition.

Table 2.6-7 is a list of clay soils in San Diego County based on the USDA Soil Survey categories.

## Seiches and Tsunamis

A seiche is a standing wave in a completely or partially enclosed body of water. It is an unlikely hazard in the unincorporated County because its water bodies are not big enough to pose a significant threat to public safety, and because most water bodies are reservoirs located in areas with very low development potential. A seiche can occur from seismic ground shaking or by the sudden movement of a landslide into a reservoir. A seiche could result in localized flooding or damage to low lying areas adjacent to large bodies of water. Areas located along the shoreline of lakes or reservoirs are susceptible to inundation by a seiche. The size of a seiche and affected inundation area is dependant on different factors including size and depth of the water body, elevation, source, and if man made, the structural condition of the body of water in which the seiche occurs.

A tsunami is a series of large waves that are caused by a sudden disturbance that displaces water. Triggers for a tsunami include earthquakes, submarine landslides, volcanic eruptions, or meteor impacts. The County's coastline is largely within incorporated cities and on Camp

Pendleton and tsunamis would not affect lands in the unincorporated County. Impacts from tsunamis and seiches are addressed in Section 2.8, Hydrology and Water Quality.

### *2.6.1.4 Soil Erosion*

Erosion of soils can occur from both wind and water sources. Wind erosion physically removes the lighter, less dense soil constituents such as organic matter, clays and silts, which are often the most fertile part of the soil. Surface water runoff erodes agricultural land and undercuts roadbanks, landfills, and riverbanks. Wind moves exposed loose soils off site and can contribute to reduced air quality. Eroded materials fill reservoirs, ponds, and drainage ditches and silt up harbors, streams, and rivers. To generally describe soils in the County, soils are divided into associations (USDA 1973). A soil association normally consists of one or more major soils and at least one minor soil, and is named for the major soils. Soils in an association typically differ in slope, depth, stoniness, drainage, and other characteristics that affect management. The San Diego area has been divided into 34 soil associations, as shown on maps and information available at the San Diego County Planning Department and within the USDA San Diego County Soil Survey. These soils have variable susceptibility to erosive forces, depending on their individual characteristics.

## 2.6.2 Regulatory Framework

### *2.6.2.1 Federal*

**U.S. Geological Survey (USGS) Landslide Hazard Program**

In fulfillment of the requirements of Public Law 106-113, the USGS created the Landslide Hazard Program in the mid-1970s. According to USGS, the primary objective of the National Landslide Hazards Program (LHP) is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies (USGS 2008a). The Federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a State and local responsibility. In San Diego County, the Unified Disaster Council (UDC) is the governing body of the Unified San Diego County Emergency Services Organization. The primary purpose of the UDC and the Emergency Services Organization is to provide for the coordination of plans and programs designed for the protection of life and property in the County of San Diego.

### *2.6.2.2 State*

**Alquist-Priolo (AP) Earthquake Fault Zoning Act**

The California Legislature passed this law in 1972 to help identify areas subject to severe ground shaking. This State law requires that proposed developments incorporating tracts of four or more dwelling units investigate the potential for ground rupture within AP zones. These zones serve as an official notification of the probability of ground rupture during future earthquakes. Where such zones are designated, no building may be constructed on the line of the fault, and before any construction is allowed, a geologic study must be conducted to determine the locations of all active fault lines in the zone.

**California Building Code (CBC)**

The CBC, adopted in 2008 and effective January 1, 2008), is based largely on the 2006 International Building Code (IBC). The CBC includes the addition of more stringent seismic provisions for hospitals, schools, and essential facilities. The CBC contains specific provisions for structures located in seismic zones. Buildings within San Diego County must conform to Seismic Design Category D and E requirements. Also, California law requires all cities and counties in Seismic Zone 4 (as defined in pre-1997 versions of the code) to identify unreinforced masonry (URM) buildings in their jurisdiction, which are not designed to withstand an earthquake. According to information received from the Seismic Safety Commission, the unincorporated County contains only 38 URM buildings (see Table 2.6-8). Most of the structures are located in Fallbrook and Ramona.

**Seismic Hazards Mapping Act**

This Act was passed by the State in 1990, to address non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. No seismic hazard mapping has been completed by the State for San Diego County. Guidelines for Evaluation and Mitigating Seismic Hazards in California (Special Publication 117) were adopted by the State Mining and Geology Board on March 13, 1997 (revised and re-adopted on September 11, 2008 as Special Publication 117a) in accordance with the Seismic Hazards Mapping Act of 1990. The publication contains the guidelines for evaluating seismic hazards other than surface fault rupture (landslides and liquefaction), and for recommending mitigation measures to minimize impacts. A lead agency may determine when the investigation required by the guidelines and the Seismic Hazards Mapping Act would occur for a project. Investigation can occur before, during, or after the CEQA process.

**State Water Code Section 13282**

On-site wastewater treatment systems (OWTS) discharge pollutants to groundwater, and therefore are regulated by the State Water Code. Section 13282 of the Water Code, allows the RWQCB to authorize a local public agency to issue permits for and to regulate OWTS "to ensure that systems are adequately designed, located, sized, spaced, constructed and maintained." The San Diego RWQCB, with jurisdiction over San Diego County, authorizes the County Department of Environmental Health (DEH) to issue certain OWTS permits.

### *2.6.2.3 Local*

**County Special Studies Zones**

The AP Act provides that a city or county may establish more restrictive policies than those within the AP Act, if desired. The County established Special Study Zones that include late-Quaternary faults mapped by the DMG in the County. Late-Quaternary faults (movement during the past 700,000 years) were mapped based on geomorphic evidence similar to that of Holocene faults except that tectonic features are less distinct. As indicated by the DMG, these faults may be younger, but the lack of younger overlying deposits precludes more accurate age classification. Traces of faults within "Special Study Zones" are treated by the County as active unless a fault investigation can prove otherwise. Before any construction is allowed, a geologic

study must be conducted to determine if any active fault lines are located on or within the vicinity of the project site.

**On-Site Wastewater System Groundwater Separation Policy**

The purpose of this County DEH policy is three-fold. It serves to: 1) protect groundwater quality by ensuring proper treatment of sewage effluent prior to its entering into groundwater, 2) protect the public health from failing on-site wastewater systems caused by high groundwater; and 3) provide a methodology for the evaluation of potential building sites using on-site wastewater systems.

**San Diego County Code**

Chapter 6, Division 1 of Title 5 of the San Diego County Code (1990) addresses hazard risks associated with URM buildings by requiring owners to submit a structural analysis and to either make structural improvements to the buildings or demolish them. Currently, the County requires compliance with this code whenever permits are requested for a property where a URM structure is located.

Section 68.301 of the County Code is the OWTS Ordinance, which establishes the requirements for OWTS in the County. It also makes it unlawful for any person to cause, suffer or permit the disposal of sewage, human excrement or other liquid wastes, in any place or manner except through and by means of an approved plumbing and drainage system and an approved sewage disposal system installed and maintained in accordance with the provisions of Division 3, of Title 5 of the County Plumbing Code and OWTS Ordinance.

Section 68.601 of the County Code pertains to Septic Tank and Cesspool Cleaners. This code section establishes processes, fees, and requirements for the examination, cleaning, and collection of sewage from septic tanks and cesspools.

**San Diego County Zoning Ordinance Fault Displacement Area Regulations**

The County Zoning Ordinance Sections 5400 through 5406 implement the requirements of the AP Act. The provisions of Sections 5400 through 5406 outline the allowable development, permitting requirements, and construction limitations within Fault Rupture Zones, as designated by the AP Act. For non-discretionary permits (such as building permits), the Department of Planning and Land Use, Building Division requires any above-surface structure to conform to the seismic requirements of the CBC and to incorporate design recommendations contained within the soils and geologic report as required per code. The County prohibits any buildings or structures to be used for human occupancy to be constructed over or within 50 feet of the trace of known fault (Section 5406, Zoning Ordinance). The County generally requires geologic reports for development proposed in AP Zones (Section 5406 b., Zoning Ordinance).

Other specific zoning ordinance sections do the following:

- Prohibit construction of essential facilities and high occupancy structures in special studies zones as defined under the AP Act or in special studies zones defined by the County of San Diego (Section 5404, Zoning Ordinance).

- Require a geologic report for other development proposed in special studies zones as defined under the AP Act or in special studies zones defined by the County of San Diego (Section 5406, Zoning Ordinance).
- Prohibit new construction of structures to be used for hazardous waste storage and/or human or animal occupancy over or within 50-feet of the trace of an active known fault, with the exception of single family wood frame dwellings not exceeding two stories in height, built or located as part of a development of less than four dwellings and mobile homes wider than eight feet (Section 5406 c & d, Zoning Ordinance).
- Delineate special studies zones along active faults as new geologic information becomes available. These special study zones shall be administered in the same manner as those delineated by the State of California.

**County of San Diego Code of Regulatory Ordinances Sections 87.401-87.430, Grading Ordinance, Design Standards and Performance Requirements**

Chapter 4 of the County Grading Ordinance (which commences at Section 87.101 of the County Code) includes requirements for the maximum slope allowed for cut and fill slopes, the requirement for drainage terraces on cut or fill slopes exceeding 40 feet in height, expansive soil requirements for cuts and fills, minimum setback requirements for buildings from cut or fill slopes, and reporting requirements including a soil engineer's report and a final engineering geology report by an engineering geologist, which includes specific approval of the grading as affected by geological factors.

## 2.6.3 Analysis of Project Impacts and Determination of Significance

### *2.6.3.1 Issue 1: Exposure to Seismic-Related Hazards*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Geologic Hazards, the proposed County General Plan Update would have a significant impact if it would expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent AP Earthquake Fault Zoning Map issued by the State Geologist or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction or landslides.

Specifically, the proposed project would result in a significant impact from fault rupture if:

a. The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an AP Fault or County Special Study Zone Fault.

b. The project proposes the following uses within an AP Zone which are prohibited by the County:

i. Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.

ii. Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities, and electrical power plants powered by nuclear reactors.

iii. Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.

The proposed project would result in a significant impact from ground shaking if the project site is located within Seismic Design Category E and F of the CBC and the project does not conform to the CBC.

The proposed project would have the potential to expose people or structures to substantial adverse effects from liquefaction if:

a. The project site contains potentially liquefiable soils;

b. The potentially liquefiable soils are saturated or have the potential to become saturated; or

c. In-situ soil densities are not sufficiently high to preclude liquefaction.

The proposed project would result in a significant impact from landslide risk if:

a. The project site would expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides;

b. The project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, potentially resulting in an on- or off-site landslide; or

c. The project site lies directly below or on a known area subject to rockfall which would result in collapse of structures.

**Impact Analysis**

Natural geologic processes that represent a hazard to life, health, or property are considered geologic hazards. Natural geologic hazards that affect people and property in San Diego County include earthquakes, which can cause surface fault rupture, ground shaking, landslides and liquefaction. As discussed below, these seismic hazards pose a high potential for causing widespread damage.

Future development in the unincorporated County must address seismic hazards. Seismic hazard regulations are in place at the State and County levels that reduce risks associated with seismic-related hazards through avoidance or building standards. These adopted guidelines include the AP Earthquake Fault Zoning Act and Special Publication 117, as described above in Section 2.6.2, Regulatory Framework.

The CBC contains specific provisions for structures located in seismic zones. To ensure that these safety measures are met, the CBC employs a permit system based on hazard

classification. The CBC also includes the addition of more stringent seismic provisions for hospitals, schools, and essential facilities. Buildings within San Diego County must conform to the Seismic Design Category E and F requirements of the CBC, which are the requirements for the most active seismic zone.

The various types of geologic hazards are described in greater detail below.

**Fault Rupture**

During earthquakes, the ground can rupture at or below the surface. Ground rupture occurs when two lithosphere plates heave past each other, sending waves of motion across the earth. Ground rupture can completely demolish structures by rupturing foundations or by tilting foundation slabs and walls, as well as damage buried and above ground utilities. Drinking water can be lost, and the loss of water lines or water pressure can affect emergency services, including fire fighting ability. The AP Earthquake Fault Zoning Act identifies areas that are subject to fault rupture. Active faults in the region that could result in fault rupture include segments of the San Jacinto, Elsinore, and Rose Canyon Fault Zones described above. The entirety of each of these fault zones in San Diego County is located in either an AP Fault Zone or a County Special Studies Zone, as shown in Figure 2.6-2. County Special Studies Zones are late-Quaternary faults mapped by the DMG that are not included in AP Fault Zones. However, the County considers them to be active unless a geological investigation can prove otherwise. The San Jacinto Fault Zone is located in the Desert Subregion. The Elsinore Fault Zone traverses the Pala/Pauma, North Mountain, Julian, Desert, Central Mountain, Rainbow, Ramona, Valley Center, and Mountain Empire Subregions and CPAs. The Rose Canyon Fault Zone traverses a portion of the County Islands CPA.

Land uses proposed within fault zones, AP Zones and County special study fault zones in the County and in each affected CPA and Subregion are provided in Table 2.6-9 and Table 2.6-10, respectively. Under the General Plan Update, designated land uses along the San Jacinto Fault Zone would be primarily rural and semi-rural residential land uses located in the Desert Subregion and Anza-Borrego Desert State Park. Land uses proposed under the General Plan Update along the Elsinore Fault Zone would be primarily rural residential and open space uses located in the Pala/Pauma Valley Subregion, North Mountain CPA and Rainbow CPA. Therefore, based on the land use designations identified in the proposed General Plan Update, the project would have the potential to result in development within 50 feet of an active fault. Additional faults exist throughout the County, but are not designated as having a high risk of fault rupture. However, as new geologic information becomes available, the County may identify other faults as being active and posing a significant risk.

**Seismic Ground Shaking**

Ground shaking is the most common effect of earthquakes that adversely affects people and constructed improvements. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Seismic waves propagating through the earth's crust are responsible for the ground vibrations normally felt during an earthquake. The CBC defines different regions of the U.S. and ranks them according to their seismic hazard potential. All of San Diego County is located within Seismic Design Categories E and F, which have the highest seismic potential. Therefore, exposure to seismic ground shaking is potentially significant in all areas of the unincorporated County.

### Liquefaction

Liquefaction occurs primarily in saturated, loose, fine to medium-grained soils in areas where the groundwater table is generally 50 feet or less below the surface. When these sediments are shaken during an earthquake, a sudden increase in pore water pressure can cause the soils to lose strength and behave as a liquid. Liquefaction is not known to have occurred historically in San Diego County; however, portions of the unincorporated County would have the potential to be susceptible to liquefaction from ground shaking during larger seismic events. There may be a potential for liquefaction in areas with loose sandy soils combined with a shallow groundwater table, which typically are located in alluvial river valleys/basins and floodplains. Figure 2.6-3 depicts areas with the potential for liquefaction to occur in the County. Every CPA and Subregion contains some areas at risk for liquefaction. CPAs and Subregions with large areas at risk for liquefaction include Pala/Pauma Valley, Ramona, North Mountain, Valley Center, Mountain Empire, and the Desert, including the Borrego Springs area. However, liquefaction risk has diminished within Borrego Springs over the past 50 years due to groundwater extraction which has caused the depth to groundwater in most areas to be greater than 50 feet below the ground surface. Table 2.6-11 provides the acreage of proposed land use designations on potentially liquefiable soils in the County and Table 2.6-12 provides the acreages in individual CPAs and Subregions. The majority of land uses that are proposed to be located on potentially liquefiable soils are semi-rural or rural development, open space, or areas located within a National or State Park.

### Landslides

Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrate slopes with unstable material. Boulder-strewn hillsides can pose a boulder-rolling hazard from ground shaking, blasting or a gradual loosening of their contact with the surface.

Previous landslides and landslide-prone sedimentary formations are mostly located in the western portion of the unincorporated County. Landslides have also occurred in the granitic terrain in the eastern portion of the County, although they are less prevalent than in the west. Reactivations of existing landslides can be triggered by seismic shaking.

Figure 2.6-4 identifies the unincorporated areas with the highest landslide potential. Areas of landslide risk are located in every CPA and Subregion in the County. However, areas identified as high risk are located in the CPAs and Subregions of Pendleton/De Luz, Otay, Jamul/Dulzura, North Mountain, Mountain Empire, Pala/Pauma Valley, San Dieguito, and the Desert. Areas with moderate risk have been identified in Pendleton/De Luz, Fallbrook, Valley Center, Bonsall, North County Metro, Ramona, San Dieguito, Lakeside, Otay, Pala/Pauma Valley, Mountain Empire, and the Desert. The General Plan Update primarily proposes low-density land use designations in areas of high-to-moderate susceptibility to landslides. One exception is the San Dieguito CPA, where some areas with potentially high/moderate susceptibility to landslides are proposed for Semi-Rural Residential use; however, this designation primarily reflects the existing development pattern in San Dieguito CPA and geotechnical investigations are conducted as part of the regulatory process, as noted below.

## Federal, State and Local Regulations and Existing Regulatory Processes

Seismic hazard regulations are in place at the State and County levels that reduce risks associated with seismic-related hazards, such as seismic groundshaking, through avoidance or building standards. These adopted guidelines include the AP Earthquake Fault Zoning Act and Special Publication 117a, as described above in Section 2.6.2, Regulatory Framework.

The CBC contains specific provisions for structures located in seismic zones. To ensure that these safety measures are met, the CBC employs a permit system based on hazard classification. The CBC, which was updated in 2007, is based largely on the IBC but includes the addition of more stringent seismic provisions for hospitals, schools, and essential facilities. Buildings within San Diego County must conform to the Seismic Design Categories E and F structural design requirements of the CBC, which are the requirements for the most active seismic zone. This is assured through the County's building permit process.

### *Fault Rupture*

As noted above, the AP Earthquake Fault Zoning Act identifies areas that are subject to fault rupture. A Geotechnical investigation hazard assessment is required under the AP Earthquake Fault Zoning Act for project sites within AP Fault Zones. The geologic investigation must conform to California Geologic Survey's Guidelines for Evaluating the Hazard of Surface Fault Rupture (2002) and the California Board of Geologist and Geophysicists Geologic Guidelines for Earthquake and/or Fault Hazard Reports (1986). A hazard assessment for project sites within zones of required investigation are required to determine: 1) the location or absence of hazardous faults on or adjacent to the site, and the ages of past rupture events; 2) the distribution of primary and secondary faulting; 3) the probability of, or relative potential for, future surface displacement; and 4) the degree of confidence in and limitations of these conclusions.

Section 5400 of the County Zoning Ordinance, Fault Displacement Area Regulations, implements the AP Earthquake Fault Zoning Act, including the above mentioned required geotechnical investigation for projects located in an AP Fault Zone or a County Special Study Zone. In addition to the required geotechnical investigation, Section 5400 prohibits certain uses within fault displacement areas, including structures with a capacity of 300 persons or more or schools, and prohibits construction of a structure built for human occupation within 50 feet of an active fault. Uses that are allowed within fault displacement areas must obtain a MUP from the County and are required to be constructed to sustain earthquake forces by complying with the CBC and incorporating all design recommendations contained in the required geotechnical investigation. Examples of design recommendations included in geotechnical investigations may include strengthening of foundations, engineering designs and flexible utility connections. However, design recommendations contained in geotechnical investigations vary based upon the location and design of the individual project.

Faults are mapped in the County's GIS system and all permits are reviewed for proximity to these faults.

### *Seismic Ground Shaking*

Construction standards have been developed to ensure structures can withstand seismic events, including structural engineering requirements that have been incorporated into the CBC, which lower the associated risks of seismic shaking. The CBC includes specific Seismic Hazards Standards for construction within areas of high seismic activity. Effective design

measures include constructing earth fills to partially absorb underlying ground movements; isolating foundations from the underlying ground movements; and designing strong, ductile foundations that can accommodate some deformation without compromising the functionality of the structure (Bray 2006). Any above-ground structure is required to comply with the structural parameters set forth within the most current edition of the CBC in order to anticipate and avoid the potential for adverse impacts from seismic ground shaking. This is assured through the County's building permit process.

### *Liquefaction*

If a project site is located within a potential liquefaction area, feasible designs measures exist that can mitigate the liquefaction hazard. Examples of design measures that may reduce a liquefaction hazard to an acceptable level include slope stabilization methods (such as buttress fills, subdrains, soil nailing, and crib walls) or strengthening the design of the structure through techniques such as reinforced foundations. Prior to issuance of building permits, DPLU requires projects in a potential liquefaction area to prepare a geotechnical study (a requirement of the CBC). The geotechnical study required for project sites within areas of required investigation must demonstrate that liquefaction at a proposed site poses a sufficiently low hazard as to satisfy the defined acceptable level or risk criteria, or propose mitigation suitable to effectively reduce the hazards to acceptable levels. The study provides specifications on a foundation design to preclude substantial damage to proposed structures due to liquefaction. Any site-specific engineering designs suggested in a geotechnical study would be reviewed and approved by the County. The scope and type of mitigation measures and site-specific engineering designs proposed in a required geotechnical study would depend on the site conditions present and the nature of the individual project.

### *Landslides*

On a project-by-project basis, the County DPLU may require projects located on or within 500 feet of a landslide susceptibility area, as shown on Figure 2.6-4, to prepare a geologic reconnaissance report as part of CEQA review. The intent of the reconnaissance report is to evaluate whether there are any risks to people or property from landslides or rockfall. If a potentially significant impact is identified, feasible mitigation or design measures, would be identified that would reduce potentially significant impacts. The specific requirements to be included in a geologic reconnaissance report are determined by the County on a project-by-project basis. However, the County requires all reconnaissance reports to conform to the California Board of Geologists and Geophysicists Guidelines for Engineering Geologic Reports (1986) and to be completed by a Certified Engineering Geologist. At a minimum, the geologic reconnaissance report should include a review of topographic maps, geologic and soil engineering maps and reports (if available), stereoscopic aerial photograph review, and other published and non-published references. The County suggests that aerial photographs be used in identifying potential landslide features in addition to sets of stereoscopic aerial photographs that pre-date the current condition of the project site area. A field visit is often required to confirm information in questionable areas, address the potential risk of rockfall to the project site, and observe surface features and details that would not be determined from other data sources. Although engineering design recommendations are generally not a required component of a geologic reconnaissance report, feasible measures to mitigate potential impacts from landslides or rockfall to levels below significance are required to be discussed where appropriate. Examples of mitigation measures may include techniques such as buttressing landslides or installing special drainage devices, while environmental design considerations may include techniques such as placing a structure to best take advantage of the site geologic

conditions. The scope and type of mitigation measures and environmental design considerations proposed in a required geotechnical study depends on the site conditions present and the nature of the individual project.

As discussed in the County's Guidelines for Determining Significance, Geologic Hazards, the County endorses three mitigation techniques for reducing landslide impacts: 1) avoiding the hazard; 2) protecting the site from the hazard; and 3) reducing the hazard to an acceptable level. Examples of County endorsed mitigation methods include building developments sufficiently far away from the landslide threat so that it would not be affected if the slope fails; requiring catchments and/or protective structures such as basins, embankments, diversion or barrier walls, and fences; eliminating or reducing the slope, removing the unstable soil and rock materials, or applying one or more appropriate slope stabilization methods (such as buttress fills, sub drains, soil nailing, or crib walls). For deep-seated slope instability, strengthening the design of the structure (e.g., reinforced foundations) is not considered by the County to be an adequate mitigation measure. Implementation of the General Plan Update would continue to require all projects within the County comply with County landslide standards.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update addresses geologic hazards in the Safety Element. This element includes Policy S-7.1 which requires new development to be located in areas for which the risk to people or property is at a minimum. This policy implements Safety Element Goal S-7, which is to minimize personal injury and property damage resulting from seismic hazards. All development would be required to include engineering measures to reduce risk in accordance with the CBC and other established standards in areas subject to severe ground shaking, liquefaction, subsidence, or other types of ground failure associated with seismic events.

General Plan Update Policy S-8.1 would require that new development be directed away from areas with high landslide potential when engineering solutions have been determined by the County to be infeasible. Policy S-8.2 would prohibit development from causing or contributing to slope instability. These policies are related to the Safety Element Goal S-8, which is to minimize personal injury and property damage caused by mudslides, landslides or rock falls.

General Plan Update Policies S-7.1, S-7.2, S-7.3 and S-7.4 require components of the AP Earthquake Fault Zoning Act and County Special Studies Zone regulations to be implemented, including the requirement that development must be located 50 feet away from an active or potentially active fault, and the avoidance of certain uses within AP Fault Zones or County Special Studies Zones. These policies implement Safety Element Goal S-7, which is to minimize personal injury and property damage resulting from seismic hazards.

**Summary**

Implementation of the proposed General Plan Update would designate land uses, which would allow development to occur in areas with geological risks such as seismically induced ground shaking, liquefaction, and landslides. However, future development would be required to comply with all relevant federal, State and local regulations and building standards, including the CBC and County required geotechnical reconnaissance reports and investigations. Therefore, impacts from seismically induced fault rupture, ground shaking, liquefaction, and landslides would be less than significant.

### *2.6.3.2 Issue 2: Soil Erosion or Topsoil Loss*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in substantial soil erosion or the loss of topsoil.

**Impact Analysis**

Topsoil is the uppermost layer of soil, usually comprised of the top six to eight inches below the ground surface. It has the highest concentration of organic matter and microorganisms, and is where most biological soil activity occurs. Plants generally concentrate their roots in, and obtain most of their nutrients from, this layer of soil. Topsoil erosion is of concern when the topsoil layer is blown or washed away. This creates an environment that doesn't support the plants and animals otherwise present in topsoil and disrupts the food chain and local ecosystem. It can also increase the rate of pollutants that become airborne or are delivered to watersheds. Where levees are used, wetlands and estuarine shorelines may also be deprived of enriching sediments that would normally be deposited by natural floodwaters topping a channel's banks.

Implementation of the General Plan Update would allow the development of designated land uses that would have the potential to expose topsoil to erosion from water or wind resulting from construction or operational activities. Development of land uses would expose topsoil to erosion during earthmoving and grading activities. Land uses proposed under the General Plan Update that would allow for development that generally requires intensive construction activities include, village residential, semi-rural residential and village mixed core. Additionally, the development of land uses would result in a permanent increase in impermeable areas, which would increase surface water runoff and associated erosion. Erosion from water runoff is discussed in greater detail in Section 2.8, Hydrology and Water Quality, Issue 3: Erosion or Siltation. As described in this section, projects that result in channel modification and hydromodification, which is the alteration of the natural flow of water through a landscape, as well grading and excavation during construction, would have the potential to result in an increase in erosion or topsoil loss from runoff. Additionally, removal of vegetation during or after construction that would expose topsoil to wind may result in topsoil being blown away. Some components of topsoil may also become airborne and contribute to air pollution in the form of particulate matter. Project related airborne pollutants, including particulate matter, are discussed in Section 2.3, Air Quality.

**Federal, State and Local Regulations and Existing Regulatory Processes**

All construction activities occurring under the General Plan Update would be required to comply with CBC and the County of Grading Ordinance, both of which would ensure implementation of appropriate measures during grading and construction activities to reduce soil erosion. The County Grading Ordinance also requires all clearing and grading to be carried out with dust control measures including watering, application of surfactants, shrouding, control of vehicle speeds, paving of access areas, or other operational or technological measures that would reduce potential for erosion from wind.

Construction occurring under the proposed General Plan Update would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program, which requires stormwater pollution prevention plans (SWPPPs) to be prepared and best management

practices (BMPs) to be identified for construction sites greater than one acre. Implementation of appropriate BMPs would protect water quality by controlling storm water runoff and ensuring that the quality of storm water flows meets the applicable requirements of the RWQCB. County building and grading inspectors ensure that BMPs are in place and effective per the County Grading Ordinance and the Watershed Protection Ordinance (WPO).

**Proposed General Plan Update Goals and Policies**

As described in Section 2.8.3.3, Issue 3: Erosion or Siltation, the General Plan Update would result in a potentially significant impact associated with erosion or topsoil loss. However, General Plan Update policies within the Land Use Mobility, Conservation and Open Space, and Safety Elements, along with related implementation measures, would reduce impacts associated with soil erosion to below a significant level. These policies and mitigation measures are identified in Section 2.8.6, Hydrology and Water Quality, Mitigation. Additionally, as described in Section 2.9.3.2, Issue 2: Conflicts with Land Use Plans, Policies, and Regulations, the proposed General Plan Update includes Policy LU-6.5 that requires new development to use low impact development techniques. This would reduce the potential for erosion to occur because low impact development minimizes the alteration of site drainage from pre-project conditions. This policy is identified in Section 2.9.6, Land Use, Mitigation.

**Summary**

Compliance with the policies and mitigation measures identified in Sections 2.8, Hydrology and Water Quality, and 2.9, Land Use, as well as all applicable regulations including the NPDES, CBC, and the County Grading Ordinance, would prevent potential impacts to soil erosion or the loss of topsoil to below a significant level.

### *2.6.3.3 Issue 3: Soil Stability*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Geologic Hazards, the proposed County General Plan Update would have a potentially significant impact if it would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

**Impact Analysis**

The proposed General Plan Update would result in a significant impact if future development would be located in geologically hazardous areas, as described above under Guidelines for Determining Significance. The soil stability risks that can cause such geologic hazards are addressed individually below.

**Landslide, Lateral Spreading, or Collapse**

Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrate slopes with unstable material. Boulder-

strewn hillsides can pose a boulder-rolling hazard from ground shaking, blasting or a gradual loosening of their contact with the surface.

Previous landslides and landslide-prone sedimentary formations are mostly located in the western portion of the unincorporated County. Landslides have also occurred in the granitic terrain in the eastern portion of the County, although they are less prevalent than in the west. Reactivations of existing landslides can be triggered by seismic shaking.

Figure 2.6-4 identifies the unincorporated areas with the highest landslide potential. Areas of landslide risk are located in every CPA and Subregion in the County. However, areas identified as high risk are located in the CPAs and Subregions of Pendleton/De Luz, Otay, Jamul/Dulzura, North Mountain, Mountain Empire, Pala/Pauma Valley, San Dieguito, and the Desert. Areas with moderate risk have been identified in Pendleton/De Luz, Fallbrook, Valley Center, Bonsall, North County Metro, Ramona, San Dieguito, Lakeside, Otay, Pala/Pauma, Mountain Empire, and the Desert. The General Plan Update primarily only proposes low-density land use designations in areas of high-to-moderate susceptibility. One exception is the San Dieguito CPA, where some areas with potentially high/moderate susceptibility to landslides are proposed for Semi-Rural Residential use.

Lateral spreading is shallow, water-saturated landslide deformation often triggered from seismically induced liquefaction. The County has had no known cases of lateral spreading resulting in damage to property or structures.

**Subsidence**

Subsidence refers to elevation changes of the land whether slow or sudden. Subsidence can cause a variety of problems including broken utility lines, blocked drainage, or distorted property boundaries and survey lines. According to the Multi-jurisdictional Hazard Mitigation Plan (URS 2004), the underlying geologic formations in the County are mostly granitic which have a very low potential of subsidence. Borrego Valley has recorded some minor subsidence that has not caused damage. This subsidence was caused by groundwater depletion (Van Zandt 2004). Therefore, the General Plan Update is not anticipated to result in a potentially significant impact resulting from locating structures in areas at risk for subsidence.

**Liquefaction**

As described above in Issue 1, liquefaction is not known to have occurred historically in San Diego County; however, there may be a potential for liquefaction in areas with loose sandy soils combined with a shallow groundwater table, which typically are located in alluvial river valleys/basins and floodplains. Figure 2.6-3 depicts areas with the potential for liquefaction in the County. Every CPA and Subregion contains some areas at risk for liquefaction. CPAs and Subregions with large areas at risk are Pala/Pauma Valley, Ramona, North Mountain, Valley Center, Mountain Empire, and the Desert Subregion, including the Borrego Springs area. Table 2.6-11 and Table 2.6-12 provide the acreage of proposed land uses on potentially liquefiable soils.

**Federal, State and Local Regulations and Existing Regulatory Processes**

***Landslide, Lateral Spreading, or Collapse***

On a project-by-project basis, the County of San Diego may require that project sites located on or within 500 feet of a landslide susceptibility area, as shown on Figure 2.6-4, prepare a geologic reconnaissance report, and thus may require a geotechnical investigation that would make recommendations to minimize hazards associated with landslides. Additionally, the San Diego County Grading Ordinance includes requirements to ensure soil stability during grading and construction, including requirements for steepening of slopes.

***Subsidence***

As discussed above, the County relies on the Multi-Jurisdictional Hazard Mitigation Plan (URS 2004) to determine the potential for subsidence. With the exception of Borrego Springs where minor subsidence has occurred, the potential for subsidence in the unincorporated area is extremely low.

***Liquefaction***

As discussed in Issue 1 above, for future development under the General Plan Update within a potential liquefaction area, feasible foundation designs exist that can mitigate the liquefaction hazard. Prior to issuance of building permits, DPLU requires projects in a potential liquefaction area to prepare a geotechnical study. The study provides specifications on a foundation design to preclude substantial damage to proposed structures due to liquefaction.

**Proposed General Plan Update Goals and Policies**

As described above in Issue 1 above, General Plan Update Policy S-8.1 requires that new development be directed away from areas with high landslide potential when engineering solutions have been determined by the County to be infeasible. Additionally, the County of San Diego requires that project sites located on or within 500 feet of a landslide susceptibility area, as shown on Figure 2.6-4, prepare a geologic reconnaissance report and may require a geotechnical investigation that would make recommendations to minimize hazards associated with landslides.

**Summary**

Build-out of the proposed General Plan Update would have the potential to result in hazards associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. However, future development under the General Plan Update would be required to comply with federal, State and local building standards and regulations, including the CBC and County-required geotechnical reconnaissance reports and investigations. Compliance with such regulations would reduce impacts associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse to a less than significant level.

## *2.6.3.4 Issue 4: Expansive Soils*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Geologic Hazards, the proposed County General Plan Update would

have a significant impact if it would be located on expansive soil, as defined in Section 1802A.3.2 of the CBC, creating substantial risks to life or property.

## Impact Analysis

Certain types of clay soils expand when they are saturated and shrink when dried. These are called expansive soils, and can pose a threat to the integrity of structures built on them without proper engineering. If the moisture content and/or soil type differs at various locations under the foundation of a structure, localized or non-uniform movement may occur. This movement can cause damage to the foundation and building structural system, evidenced by cracking of the slab or foundation, cracking in the exterior or interior wall coverings (indicating movement of support framing), uneven floors, and/or misaligned doors and windows.

As shown in Figure 2.6-5, areas of highly expansive soils within San Diego County occur predominately in the coastal plains. They can also be found in valleys and on slopes in the foothills and mountains of the Peninsular Range and, to a lesser extent, in the Desert Region. In the foothills, soils having a high expansion potential occur near the Ramona CPA, North County Metro Subregion, Rainbow CPA, and Bonsall CPA. Other areas having high shrink-swell soils are Guatay and Pine Valley in the Central Mountain Subregion. As shown in Figure 2.6-5, areas of potentially expansive soils are located throughout the County, with the highest concentrations of expansive soils located in the western areas. Tables 2.6-13 and 2.6-14 provide the acreages of proposed General Plan Update land use designations in the County and within each CPA and Subregion, respectively that would be located on potentially expansive soils. Under the proposed General Plan Update, land uses that would have the largest acreages proposed on potentially expansive soils include semi-rural residential (65,586 acres); village residential (34,783 acres); and rural lands (26,995 acres). All of these land uses would allow for the development of homes and/or other structures which would have the potential to be adversely impacted by expansive soils.

### Federal, State and Local Regulations and Existing Regulatory Processes

Construction standards have been developed to ensure structures can withstand changes in the integrity of the soil. Structural engineering standards have been incorporated into the CBC. If the area is located within a zone that has high shrink-swell soils, compliance with the structural and engineering standards set forth within the CBC are required as project design considerations through the County's building permit process. Such standards require that all development adhere to strict guidelines for construction on soils that are within a high shrink/swell category as defined by the U.S. Department of Agriculture, San Diego Soil Survey. The CBC also contains construction and engineering standards for projects located in areas that have high shrink-swell soils. The provisions of the CBC require that a geotechnical investigation be performed to provide data for the architect and/or engineer to responsibly design the project.

### Proposed General Plan Update Goals and Policies

The proposed General Plan Update addresses geologic hazards, such as expansive soils, in the Safety Element. This element includes Policy S-7.2 which requires new development to be located in areas for which the risk to people or property is minimized while requiring all development to include engineering measures to reduce risk in accordance with the CBC, IBC, and other geologic hazard safety standards, including design and construction standards that regulate land use in areas known to have or potentially have significant geologic hazards.

**Summary**

The General Plan Update would designate land uses that would allow for the development of structures on potentially expansive soils. Therefore, future construction projects in San Diego County would be affected by expansive soils. However, projects would be required to comply with all applicable federal, State and local regulations, including the IBC and CBC. Compliance with such regulations would reduce potentially significant impacts to below a level of significance.

### *2.6.3.5 Issue 5: Waste Water Disposal Systems*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

**Impact Analysis**

As described in Section 2.16, Utilities and Service Systems, wastewater districts are generally responsible for providing collection, transmission, and disposal of sewage. There are 24 wastewater districts that serve the unincorporated County, as shown in Figure 2.16-2. Unincorporated areas not serviced by wastewater districts typically utilize septic systems, or OWTS, for wastewater disposal. The most common type of septic system found in San Diego County consists of a septic tank connected to leach lines. Many regions of the County rely on OWTS rather than sewer connections, including areas in the CPAs and Subregions of North Mountain, Ramona, Rainbow, San Dieguito, Spring Valley, Sweetwater, Valley Center, Alpine, Bonsall, Fallbrook, Central Mountain, North County Metro, Mountain Empire, Julian, Desert, and Crest/Dehesa.

Several issues associated with septic tanks have previously been identified in the unincorporated County. Rainbow Valley and portions of the Ramona basin have experienced groundwater levels that are too high to allow new development based on the use of septic tank disposal systems. Similarly, areas of Valley Center have experienced a building moratorium due to the high groundwater levels which cause failing septic systems. In the San Dieguito CPA, the proximity of the Del Dios area to the potable water supply in Lake Hodges has limited the use of septic tanks. The General Plan Update includes residential and other land use designations in these areas, as well as in all other CPAs and Subregions that rely on OWTS. The General Plan Update generally proposes semi-rural and rural land uses with potential lot sizes large enough to support OWTS; however, project-specific analyses would be required for all future development to determine the capability of a site to support an OWTS.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Discharged wastewater must conform to the RWQCB's applicable standards, including the Regional Basin Plan and the California Water Code. On-site wastewater treatment systems (OWTS) discharge pollutants to groundwater, and therefore are regulated by the State Water Code. California Water Code Section 13282 allows RWQCBs to authorize a local public agency

to issue permits for OWTS "to ensure that systems are adequately designed, located, sized, spaced, constructed and maintained." The San Diego RWQCB and Colorado River Basin RWQCB have authorized the DEH to issue certain OWTS permits throughout the County and within the incorporated cities.

Project specific analyses would be required for future developments that would rely on OWTS in order to determine if the site is capable of supporting an OWTS. A permit must be obtained to install any new OWTS. The County DEH has several policies in place for the permitting of septic systems. The DEH published the Design Manual for On-Site Wastewater Treatment Systems on June 26, 2008. This document describes how OWTS are reviewed and permits are issued in San Diego County. The document also includes design criteria for these systems.

Soil permeability determines the degree to which soil can accept sewage discharge over a period of time. Permeability is measured by percolation rate, which is measured in minutes per inch (MPI). The first step in obtaining a permit is a percolation test that determines if soil is capable of supporting OWTS. Additionally, several other factors are considered by the DEH. The distance between the bottoms of the OWTS leach field and groundwater is a factor. All conventional OWTS in the County require at least 5 feet of unsaturated soil between the bottom of the sewage disposal system and the highest anticipated groundwater level for the site. Anticipated peak daily flow is also considered and is often a factor in the number of bedrooms proposed by residential projects. The area available on a parcel that meets all setback requirements to structures, easements, watercourses, or other geologic limiting factors for the design of an OWTS determines whether a site is large enough to accommodate all design features required for an OWTS in the County. Future development that would require OWTS would also be required to comply with the County's On-Site Wastewater System Groundwater Separation Policy and County Code Sections 68.301 and 68.601, described above in Section 2.6.2, Regulatory Framework.

Alternative wastewater disposal systems are not approved for new development by DEH at this time. However, the California Water Board is preparing Statewide on-site wastewater treatment system regulations as required by Assembly Bill (AB) 885 (and the related California Water Code sections). Once adopted, the County DEH will rely on the new regulations to permit alternative OWTS.

**Summary**

Implementation of the proposed General Plan Update would designate land uses that have the potential to allow development to occur in areas where soils are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. However, all future development projects would be required to comply with all applicable federal, State and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would reduce the potential for septic systems to be located in soils incapable of supporting such systems. Therefore, impacts would be less than significant.

### *2.6.3.6 Issue 6: Unique Geologic Features*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Unique Geology, the proposed County General Plan Update would have a significant impact if it would directly or indirectly destroy a unique geologic feature. Specifically, the project would result in significant impact if it would materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource. A geologic feature is unique if it meets one of the following criteria:

a. Is the best example of its kind locally or regionally;
b. Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
c. Provides a key piece of geologic information important in geology or geologic history;
d. Is a "type locality" of a formation;
e. Is a geologic formation that is exclusive locally or regionally;
f. Contains a mineral that is not known to occur elsewhere in the County; or
g. Is used repeatedly as a teaching tool.

**Impact Analysis**

Table 2.6-1 provides a focused list of known unique geologic features in San Diego County. This list includes sites listed in the NRI and is not a comprehensive list of unique features in the County. Nearly all of the known features in Table 2.6-1 are located in areas that would not be disturbed by development (*e.g.,* open space, parks, roadway right-of-way, etc.).

Additional unlisted or previously unknown unique geologic features that meet the criteria listed above may be present throughout the County, especially in areas that currently contain little development. Unique features such as mima mounds, migmatites, and exposures of the Sweetwater and La Nacion Faults are not included in the NRI. It is important for newly discovered unique features to be protected from destruction so that their importance and ability to meet the above criteria can be evaluated. Future development under the General Plan Update may result in direct or indirect impacts to unique geologic features and would need to be evaluated on a project-specific basis. Direct impacts may result if construction of new development would destroy the resource. Indirect impacts would occur if land uses result in alteration of the physical characteristics of the resource that make it unique, such as increased runoff that would erode the feature.

**Federal, State and Local Regulations and Existing Regulatory Processes**

There are no specific relevant codes and regulations related to the protection of unique geologic features. However, development projects in San Diego County are screened for potential occurrence of such features and the County Guidelines for Determining Significance, Unique Geology, are applied if/when any such occurrences are identified. In addition, the County may

require that a geologic reconnaissance report be prepared by a California Professional Geologist to evaluate impacts to unique geologic features.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes Goal COS-9 in the Conservation and Open Space Element, which requires the conservation of unique geologic features. Policy COS-9.2 supports this goal by requiring that future development minimizes impacts to unique geologic features.

**Summary**

Implementation of the proposed General Plan Update would designate land uses that would allow development in areas that may have the potential to materially impair a unique geologic feature by destroying or altering the physical characteristics that convey the uniqueness of the resource. However, future development would be required to follow all applicable regulatory processes, including compliance with the County's Guidelines for Determining Significance, which could require the completion of a geological reconnaissance report to evaluate the significance of unique geologic features on a given project site. In addition, most of the known features in the unincorporated County are in locations that would not be affected by future development of the General Plan Update. Given the existing conditions and regulatory processes, and the fact that unique geologic resources are such a rarity in San Diego County, potential impacts to unique geologic features would be less than significant.

## 2.6.4 Cumulative Impacts

The geographic scope of the cumulative impact analysis for geology is limited to the immediate area of the geologic constraint, with the exception of some geologic impacts that are regional, such as earthquake risk.

### *2.6.4.1 Issue 1: Exposure to Seismic Related Hazards*

Most of Southern California is located in an area of a relatively high seismic activity, including cumulative projects in the San Diego region. Some cumulative projects, such as those located in adjacent city and county jurisdictions would be subject to the CBC, which contains requirements for development in areas subject to Seismic Design Categories E and F. Additionally, cumulative projects, such as development consistent with surrounding jurisdictions general plans and projects not included in the proposed General Plan Update would be subject to the AP Earthquake Fault Zone Act, which restricts development on active fault traces. Other jurisdictions (special districts, sovereign tribal nations) in the region have policies and guidelines in place to reduce seismic-related risks, and cumulative projects in these jurisdictions would be subject to these and other applicable State and/or federal regulations. Some cumulative projects, such as those occurring within Mexico, would not be subject to such regulations. However, the geographic scope of cumulative impact analysis for seismic-related hazards is limited to the immediate area of the geologic constraint because additional development does not compound risks from seismic hazards. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### 2.6.4.2 Issue 2: Soil Erosion or Topsoil Loss

Cumulative projects would have the potential to result in substantial soil erosion or the loss of topsoil through construction activities such as grading and excavation that may result in hydromodification or exposure of topsoil to wind that would result in topsoil being washed or blown away. Cumulative projects, such as development proposed under surrounding jurisdictions general plans and projects not included in the proposed General Plan Update, would result in sedimentation to stream courses which would result in a potentially significant cumulative impact. Most cumulative projects are subject to State and local runoff and erosion prevention requirements, including the applicable provisions of the CBC, SWRCB general construction permit, BMPs, Phases I and II of the NPDES permit program, and the County Grading Ordinance. These measures are required to be implemented as conditions of approval for future development projects and are subject to continuing enforcement. Some cumulative projects, such as those located on tribal lands or within Mexico, would not be subject to State and local regulations. However, the geographic scope of cumulative impact analysis for soil erosion and topsoil loss is limited to the immediate area of the geologic constraint because additional development would not compound risks from top soil loss at a specific project site. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### 2.6.4.3 Issue 3: Soil Stability

Cumulative projects would have the potential to be located on geologic units or soils that are unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. It is anticipated that some cumulative projects, such as those allowable under adjacent jurisdictions general plans and on tribal lands, would be required to undergo analysis of geological and soil conditions applicable to the development site in question during CEQA and/or NEPA environmental review and comply with all applicable regulations to reduce risks, including the CBC. Cumulative project compliance with applicable regulations would ensure that a significant cumulative impact would not occur. Other cumulative projects, such as those located on tribal lands or within Mexico, would not be subject to such regulations. However, the geographic scope of cumulative impact analysis for soil stability is limited to the immediate area of the geologic constraint because additional development would not compound risks from soil instability since they are site specific. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### 2.6.4.4 Issue 4: Expansive Soils

Cumulative projects would have the potential to be located on expansive soil, as defined in Section 1802A.3.2 of the CBC, creating substantial risks to life or property. Some cumulative projects such as those located in adjacent city and county jurisdictions would be subject to construction standards have been developed to ensure structures can withstand changes in the integrity of the soil and structural engineering standards have been incorporated into the CBC. However, other cumulative projects such as those occurring on tribal lands or within Mexico would not be subject to such regulations. However, the geographic scope of cumulative impact analysis for expansive soils is limited to the immediate area of the geologic constraint because

additional development does not compound risks from expansive soils since they are site specific. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### *2.6.4.5 Issue 5: Waste Water Disposal Systems*

Many cumulative projects would be located in areas served by municipal sewer systems and would not require OWTS. However, some cumulative projects, such as development proposed on tribal lands, in Mexico or on federal and State-operated lands, would be located in areas where sewers are not available and would have the potential to contain soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. While it is anticipated that most adjacent jurisdictions have permit requirements for OWTS in place for the purpose of public health and safety, it is possible that some do not, such as project in Mexico or on tribal lands. However, the geographic scope of cumulative impact analysis for waste water disposal systems is limited to the immediate area of the geologic constraint because additional development does not compound risks from soil incapable of supporting a wastewater disposal system since they are site specific. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### *2.6.4.6 Issue 6: Unique Geologic Features*

Construction and operation of cumulative projects, such as development proposed under surrounding jurisdictions general plans and projects not included in the proposed General Plan Update would have the potential to materially impair a unique geologic feature by destroying or altering the physical characteristics that convey the uniqueness of the resource. While it is anticipated that most development in adjacent jurisdictions would be subject to protections for unique geologic features established through the jurisdiction's general plan or other regulations, it is possible that some do not, such as projects located within Mexico or on tribal lands. However, the geographic scope of cumulative impact analysis for unique geologic features is limited to the immediate area of the geologic feature because additional development does not compound risks to unique geologic features. Therefore, cumulative projects in the region would not result in a significant cumulative impact. The proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

## 2.6.5 Significance of Impacts Prior to Mitigation

The proposed project would not result in potentially significant direct or cumulative impacts associated with the exposure to seismic related hazards, soil erosion of topsoil loss, soil stability, expansive soils, waste water disposal systems, and unique geologic features.

## 2.6.6 Mitigation

Impacts associated with exposure to seismic-related hazards, soil erosion of topsoil loss, soil stability, expansive soils, waste water disposal systems, and unique geologic features would be less than significant. As such, mitigation is not required.

## 2.6.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses.

### *2.6.7.1 Issue 1: Exposure to Seismic-Related Hazards*

Implementation of the proposed General Plan Update would designate land uses, which would allow development to occur in areas with geological risks, such as seismically induced ground shaking, liquefaction, and landslides. However, future development would be required to comply with all relevant federal, State and local regulations and building standards, including the CBC and the County required geotechnical reconnaissance reports and investigations. Therefore, direct impacts from seismically induced ground shaking, liquefaction, and landslides would be considered less than significant. In addition, the proposed project would not contribute to a significant cumulative impact associated with seismic-related hazards.

### *2.6.7.2 Issue 2: Soil Erosion or Topsoil Loss*

The land uses proposed under the General Plan Update would allow construction and operational activities that would have the potential to expose topsoil to erosion from water or wind. This is considered a potentially significant impact. However, compliance with existing applicable regulations including the NPDES, CBC, and the County Grading Ordinance, would reduce potential impacts to below a significant level. Additionally, the proposed project would not contribute to a potentially significant cumulative impact to soil erosion or topsoil loss.

### *2.6.7.3 Issue 3: Soil Stability*

The proposed General Plan Update would have the potential to result in hazards associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. However, future development associated with the land uses designated in the proposed General Plan Update would be required to comply with all applicable federal, State and local building standards and regulations, including the CBC and County required geotechnical reconnaissance reports and investigations. Compliance with such regulations would reduce impacts associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse to a level less than significant. Additionally, the proposed project would not contribute to a potentially significant cumulative impact associated with soil stability.

### *2.6.7.4 Issue 4: Expansive Soils*

The General Plan Update would designate land uses that would allow for the development of structures on potentially expansive soils. Future projects located in areas with expansive soils would be required to comply with all applicable federal, State and local regulations, including the IBC and CBC. Compliance with such regulations would reduce impacts to a below a level of significance. Therefore, the proposed General Plan Update would not create substantial risks to life or property due to expansive soils. Additionally, the proposed project would not contribute to a potentially significant cumulative impact associated with expansive soils.

### *2.6.7.5 Issue 5: Waste Water Disposal Systems*

Implementation of the proposed General Plan Update would designated land uses that have the potential to allow development in areas where soils are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. However, future development projects would be required to comply with all applicable federal, State and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would reduce the potential for septic systems to be located in soils incapable of supporting such systems. Therefore, impacts would be less than significant. Additionally, the proposed General Plan Update would not contribute to a potentially significant cumulative impact related to waste water disposal systems.

### *2.6.7.6 Issue 6: Unique Geologic Features*

Implementation of the proposed General Plan Update would designate land uses that would allow development in areas that may have the potential to materially impair a unique geologic feature by destroying or altering the physical characteristics that convey the uniqueness of the resource. However, any future development would be required to follow applicable federal, State and local regulations, including completion of a County required geological reconnaissance report. Compliance with such regulations would reduce impacts to unique geologic features to a less than significant level. In addition, the proposed General Plan Update would not contribute to a potentially significant cumulative impact associated with impacts to unique geologic features.

## Table 2.6-1. Unique Geologic Features in Unincorporated San Diego County

| Geologic Feature | Reason for Uniqueness | Locality |
|---|---|---|
| Borrego Badlands (Borrego Formation) | Exposures of wind and water erosion features that are unusual in San Diego County | Imperial Valley, Anza-Borrego State Park east of Borrego Springs, Ocotillo Wells south of Route 78 near the Imperial County border |
| Ocotillo conglomerate in the Northern Borrego Badlands | Exposures of wind and water erosion features that are unusual in San Diego County | Near Ocotillo Wells |
| San Onofre breccia | The only exposure of these rocks in San Diego County. During the middle Miocene, from Oceanside north to the Orange County line, exotic breccia was deposited along an ancient beach. These rocks, the San Onofre breccia, had their origin in the west, from an unknown island in the Pacific Ocean. The unit contains clasts of metamorphic rocks, predominantly blue-gray glaucophane schist that is relatively rare in southern California. Layering of the clasts indicates they came from the west, fossils indicate they came from shallow marine waters, and angularity indicates they came from nearby. Deposited 100 mya. (Bergen et al. 1996) | San Onofre Hills |
| Monterey shale | Only place this rock is exposed | Along sea cliffs southeast of San Onofre |
| Petrified forest with logs in place. Exposures of the prebatholithic volcanics and sedimentary rocks containing leaf imprints | Petrified wood is extremely rare in the County | Lusardi Canyon near Rancho Santa Fe, near junction with San Dieguito River |
| Folded slates – steep dips and primary structures. | Probably the County's best location for viewing these types of features | Lusardi Canyon near Rancho Santa Fe, near junction with San Dieguito River |
| Unusual occurrence of orbicular gabbro, where the orbicles are the result of banding around xenoliths in the original rock | An unusual occurrence of orbicular gabbro | Dehesa Road, west of the Harbison Canyon Road intersection |
| Stonewall quartz diorite | Oldest igneous rock in the County | Stonewall Peak; Cuyamaca Region |
| A major bend in the Elsinore fault that includes augen gneiss | Unusual occurrence. Augen gneiss is a coarse-grained gneiss, interpreted as resulting from metamorphism of granite, which contains characteristic elliptic or lenticular shear bound feldspar porphyroclasts, normally microcline, within the layering of the quartz, biotite and magnetite bands | Overland Stage Route west of Vallecito |
| Dos Cabazas marble | Unusual tight folding in marble, alternating bands of calcite, finely disseminated graphite and garnet. Some schist and green diopside. Only place in the County to find Wollastonite. | Vicinity San Diego and Arizona Eastern Railroad to west of the Imperial County Line. |

**Table 2.6-1 (Continued)**

| Geologic Feature | Reason for Uniqueness | Locality |
|---|---|---|
| Stratigraphic relationship between Jacumba volcanic rocks (Alverson andesite) and ”Table Mountain gravels”; reworked younger gravels well exposed | Indications of volcanism and rifting from 18 mya | Table Mountain, north of Jacumba |
| Los Pinos Mountain | Only accessible gabbro pluton. Has unique comb layers and orbicular structures | Los Pinos Mountain, approximately two miles northwest of Morena Reservoir |
| A combination of gem-bearing dikes and geologic features such as migmatites, folds, and metamorphic rocks intruded by granite | Educational field trips visit this location | Sacatone Springs, Mount Tule |
| Contact zone in road cuts | Major divide between rocks that are older than 105 my and those that are younger than 95 my. Educational field trips visit this location. | Highway 80 and Interstate 8 just west of the intersection with Kitchen Creek Road |
| Andalusite-bearing schist | Only occurrence in San Diego County | Sunrise Highway (S-1) east of Lake Cuyamaca |
| Ridge between Blair and Little Blair Valleys | Intermontane basins, exposures of pegmatite dikes, prebatholithic rocks, and La Posta granites | Blair Valley and Little Blair Valley east of S-2 in Anza-Borrego State Park |
| Potrero Peak gabbro | Contains orbicular structures | Potrero Peak located east of S-94 in the unincorporated community of Potrero |
| Orbicular diorite and abandoned W-bearing rocks | Contains orbicular structures. Orbicular structures are unusual to find | Northeast of the intersection of Buckman Springs Road and Interstate 8 |
| Piñon Mountains | Only exposures of a detachment fault and associated alteration in San Diego County | Anza-Borrego State Park |

Source: DPLU 2007q

## Table 2.6-2. Modified Mercalli Intensity Scale

| MMI Scale Number | Description of Effect |
|---|---|
| I | Not felt except by a very few under especially favorable circumstances. |
| II | Felt only be a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing. |
| III | Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibration like passing of truck. Duration estimated. |
| IV | During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably. |
| V | Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop. |
| VI | Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight. |
| VII | Everybody runs outdoors. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motorcars. |
| VIII | Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motorcars disturbed. |
| IX | Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken. |
| X | Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks. |
| XI | Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bend greatly. |
| XII | Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air. |

Source: USGS 2008b

## Table 2.6-3. Comparison of Richter Magnitude and Modified Mercalli Intensity (MMI)

| Richter Magnitude | Expected MMI Value | Effect at Site |
|---|---|---|
| 2 | I – II | Usually detected only by instruments |
| 3 | III | Felt indoors |
| 4 | IV – V | Felt by most people; slight damage |
| 5 | VI – VII | Felt by all; many frightened and run outdoors; damage minor to moderate |
| 6 | VII – VIII | Everybody runs outdoors; damage moderate to major |
| 7 | IX – X | Major damage |
| 8 | X – XII | Total and major damage |

Source: USGS 2008b

## Table 2.6-4. Active Faults in and Adjacent to San Diego County

| Fault Name | General Information | Most Recent Activity |
|---|---|---|
| San Jacinto Fault Zone | 130.5 miles in length and extends through the Borrego Springs and Ocotillo Wells areas. Right-lateral strike-slip fault, minor right reverse. Most recent surface rupture was on the Coyote Creek fault, discussed below. Slip rate is typically between 7 and 17 millimeters per year (mm/yr) and the interval between surface ruptures is 100 to 300 years per segment. | Historic movement |
| Coyote Creek Fault | Right-lateral strike-slip fault extending 50 miles through Borrego Springs, Borrego, and Ocotillo Wells. Most recent surface rupture was on April 8, 1968 on the southern half. Slip rate is between 2 and 6 mm/yr. | Historic movement |
| Elsinore Fault Zone | About 112 miles in length, extending through Julian in San Diego County, and north of the County through the Temecula and Lake Elsinore areas. The Elsinore fault is one of the largest in southern California. Last major rupture was May 15, 1910, with an interval of roughly 250 years between major ruptures. Slip rate category: 4.0 mm/yr. At its southern end, the Elsinore fault is cut by the Yuha Wells fault. The continuation of the Elsinore fault, south of the Yuha Wells fault, is known as the Laguna Salada fault. | Historic movement |
| Rose Canyon Fault Zone | About 19 miles in length and extends through from the City of Coronado across San Diego Bay to the City of San Diego, La Jolla and Linda Vista communities. Slip rate category: 1.1 mm/yr; could be greater if unmeasured parallel segments carry a significant amount of slip. The faults in this zone typically dip to the east. | Holocene active in some parts, otherwise, Late Quaternary active. |
| Earthquake Valley Fault | About 16 miles in length, extending through San Felipe and Julian. Right-later strike slip fault with a slip rate of between 1 and 3 mm/yr. | Holocene active |
| San Andreas Fault Zone | Right-lateral strike-slip fault, 746 miles in length, extending generally north-south through the length of California, terminating in southern California, east of San Diego County, near the Salton Sea. Last major rupture was January 9, 1857 on the northern segment of the fault and slip rate is about 20 to 35 mm/yr. | Historic movement |

Source: SCEDC 2008

## Table 2.6-5. Alquist-Priolo Designated Earthquake Faults in San Diego County

| Fault | Location | Date of Most Recent Event (magnitude) | Estimated Maximum Magnitude[1] |
|---|---|---|---|
| Elsinore | Lake Henshaw, east of Julian [2] | May 15, 1910 (6.0) | 6.5 – 7.3[3] |
| San Jacinto | East side of Borrego Valley | April 8, 1968 (6.5) | 6.4 – 7.3[2] |
| Rose Canyon | Offshore from La Jolla Shores into San Diego Bay | Holocene active, no rupture in the last 200 years | 6.2 – 7.0[3] |

(1) Richter scale
(2) Temescal Valley earthquake on portion of fault in Riverside County
(3) Faults and Earthquakes in San Diego County, Thomas A. Demere, Ph.D., San Diego Natural History
Source: SCEDC 2008

## Table 2.6-6. Hydric Soils in San Diego County

| Category | Soil Type and Slope |
|---|---|
| ChA | Chino fine sandy loam, 0 to 2 percent slopes |
| CkA | Chino silt loam, saline, 0 to 2 percent slopes |
| InA | Indio silt loam, 0 to 2 percent slopes |
| IoA | Indio silt loam, saline, 0 to 2 percent slopes |
| IsA | Indio silt loam, dark variant |
| Lu | Loamy alluvial land |
| MoA | Mecca sandy loam, saline, 0 to 2 percent slopes |
| MxA | Mottsville loamy coarse sand, wet, 0 to 2 percent slopes |
| Rm | Riverwash |
| Tf | Tidal flats |
| TuB | Tujunga sand, 0 to 5 percent slopes |
| VaA | Visalia sandy loam, 0 to 2 percent slopes |

Source: DPLU 2007k

## Table 2.6-7. Clay Soils in San Diego County

| Category | Soil Type |
|---|---|
| Altamont | AtC, AtD, AtD2, AtE, AtE2, AtF |
| Auld | AwC, AwD, AyE |
| Boomer | BoC, BoE, BrE, BrG |
| Bosanko | BsC, BsD, BsE, BtC |
| Diablo | DaC, DaD, DaE, DaE2, DaF |
| Diablo-Olivenhain | DoE |
| Huerhuero | HrC |
| Las Posas | LpB, LpC, Lc2, Ld2, Le2, LrE, LrE2, LrG |
| Linne | LsE, LsF |
| Olivenhain | OhC |
| Redding | RdC, ReE |
| Salinas | SbA, SbC, ScA, ScB |
| Stockpen | SuA, SuB |

Source: DPLU 2007m

## Table 2.6-8. Inventory of Unreinforced Masonry Buildings in San Diego County

| CPA | No. of Buildings |
|---|---|
| Alpine | 2 |
| Campo | 2 |
| Fallbrook | 14 |
| Jacumba | 3 |
| Julian | 2 |
| Lakeside | 4 |
| Ramona | 10 |
| Wynola (Julian) | 1 |
| **Total** | **38** |

Source: DPLU 2007e

## Table 2.6-9. Land Use Designations within Fault Zones[(1)]

| Proposed Land Use | Total Acres Within AP Zone |
|---|---|
| Commercial | 13,746 |
| Industrial | 61,421 |
| National Forest and State Parks | 59,112 |
| Open Space | 69,258 |
| Public/Semi-Public Facilities | 23,476 |
| Rural Lands | 242,793 |
| Semi-rural Residential | 65,332 |
| Specific Plan Area | 2,518 |
| Tribal Lands | 36,277 |
| Village Residential | 10,586 |

(1) Information in this table contains mapped faults, AP zones, County special study fault zones, and near source shaking zones.

Source: DPLU GIS 2008

## Table 2.6-10. Land Use Designations within Fault Zones[(1)] by CPA or Subregion

| CPA or Subregion | Proposed Land Use | Total Acres With AP Zone |
|---|---|---|
| Central Mountain | National Forest and State Parks | 9,099 |
| | Open Space | 1 |
| | Rural Lands | 102,477 |
| | Semi-rural Residential | 123 |
| | **Central Mountain Total** | **111,700** |
| County Islands | Public/Semi-Public Facilities | 123 |
| | Village Residential | 31 |
| | **County Islands Total** | **155** |
| Desert | Commercial | 2,673 |
| | Industrial | 5,294 |
| | National Forest and State Parks | 28,466 |
| | Open Space | 9,302 |
| | Public/Semi-Public Facilities | 6,706 |
| | Rural Lands | 23,374 |
| | Semi-rural Residential | 29,158 |
| | Specific Plan Area | 2,518 |
| | Village Residential | 8,261 |
| | **Desert Total** | **115,751** |
| Julian | Commercial | 9,781 |
| | Industrial | 56,127 |
| | National Forest and State Parks | 2,171 |
| | Open Space | 11,956 |
| | Public/Semi-Public Facilities | 4,335 |
| | Rural Lands | 16,711 |
| | Semi-rural Residential | 24,629 |
| | Village Residential | 201 |
| | **Julian Total** | **125,909** |
| Mountain Empire | National Forest and State Parks | 698 |
| | Open Space | 9,118 |
| | **Mountain Empire Total** | **9,816** |
| North Mountain | Commercial | 1,051 |
| | National Forest and State Parks | 18,678 |
| | Open Space | 37,126 |
| | Public/Semi-Public Facilities | 1,325 |
| | Rural Lands | 79,527 |
| | Semi-rural Residential | 4,401 |
| | Tribal Lands | 25,827 |
| | Village Residential | 334 |
| | **North Mountain Total** | **168,269** |

**Table 2.6-10 (Continued)**

| CPA or Subregion | Proposed Land Use | Total Acres With AP Zone |
|---|---|---|
| Pala/Pauma Valley | Commercial | 241 |
| | Open Space | 1,463 |
| | Public/Semi-Public Facilities | 10,622 |
| | Rural Lands | 7,549 |
| | Semi-rural Residential | 6,676 |
| | Tribal Lands | 10,084 |
| | Village Residential | 1,759 |
| | **Pala/Pauma Total** | **38,395** |
| Rainbow | Open Space | 292 |
| | Public/Semi-Public Facilities | 364 |
| | Rural Lands | 9,359 |
| | Semi-rural Residential | 241 |
| | **Rainbow Total** | **10,256** |
| Ramona | Rural Lands | 3,764 |
| | Tribal Lands | 365 |
| | **Ramona Total** | **4,129** |
| Valley Center | Rural Lands | 32 |
| | Semi-rural Residential | 104 |
| | **Valley Center Total** | **136** |

(1) Information in this table contains mapped faults, AP zones, County special study fault zones, and near source shaking zones.

Note: Data has been rounded to nearest whole number.

Source: DPLU GIS 2008

## Table 2.6-11. Proposed Land Use Designation in Areas with Potential Liquefaction Hazards

| Proposed Land Use | Acres on Potentially Liquefiable Soil |
|---|---|
| Commercial | 5,894 |
| Industrial | 2,194 |
| Military Installations | 46 |
| National Forest and State Parks | 6,323 |
| Office Professional | 142 |
| Open Space | 51,909 |
| Public/Semi-Public Facilities | 8,620 |
| Rural Lands | 18,223 |
| Semi-rural Residential | 100,317 |
| Specific Plan Area | 5,058 |
| Tribal Lands | 1,318 |
| Village Core Mixed Use | 95 |
| Village Residential | 8,988 |
| **Countywide Total** | **209,127** |

Source: DPLU GIS 2008

## Table 2.6-12. Proposed Land Use Designations in Areas with Potential Liquefaction Hazards by Community

| CPA or Subregion | Proposed Land Use | Acres with Potential Liquefaction Hazard |
|---|---|---|
| Alpine | National Forest and State Parks | 3 |
| | Open Space | 17 |
| | Rural Lands | 67 |
| | Tribal Lands | 199 |
| | Village Residential | 204 |
| | **Alpine Total** | **490** |
| Bonsall | Commercial | 1,764 |
| | Office Professional | 16 |
| | Open Space | 400 |
| | Public/Semi-Public Facilities | 222 |
| | Rural Lands | 575 |
| | Semi-rural Residential | 3,377 |
| | Specific Plan Area | 34 |
| | Village Residential | 893 |
| | **Bonsall Total** | **7,281** |
| Central Mountain | Commercial | 832 |
| | National Forest and State Parks | 1,104 |
| | Office Professional | 1 |
| | Open Space | 174 |
| | Public/Semi-Public Facilities | 1,429 |
| | Rural Lands | 1,348 |
| | Semi-rural Residential | 1,878 |
| | Tribal Lands | 371 |
| | Village Residential | 659 |
| | **Central Mountain Total** | **7,796** |
| County Islands | Public/Semi-Public Facilities | 44 |
| | Rural Lands | 181 |
| | Village Residential | 65 |
| | **County Islands Total** | **290** |
| Crest/Dehesa | Commercial | 59 |
| | Open Space | 18 |
| | Public/Semi-Public Facilities | 65 |
| | Rural Lands | 401 |
| | Semi-rural Residential | 3,140 |
| | Specific Plan Area | 30 |
| | Tribal Lands | 8 |
| | **Crest/Dehesa Total** | **3,721** |

**Table 2.6-12 (Continued)**

| CPA or Subregion | Proposed Land Use | Acres with Potential Liquefaction Hazard |
|---|---|---|
| Desert | Commercial | 123 |
| | Industrial | 13 |
| | National Forest and State Parks | 2,428 |
| | Open Space | 159 |
| | Public/Semi-Public Facilities | 417 |
| | Rural Lands | 1,532 |
| | Semi-rural Residential | 567 |
| | Specific Plan Area | 89 |
| | Tribal Lands | 10 |
| | Village Residential | 111 |
| | **Desert Total** | **5,449** |
| Fallbrook | Commercial | 664 |
| | Industrial | 63 |
| | Open Space | 2,077 |
| | Public/Semi-Public Facilities | 271 |
| | Rural Lands | 819 |
| | Semi-rural Residential | 3,611 |
| | Specific Plan Area | 2,356 |
| | Village Core Mixed Use | 31 |
| | Village Residential | 550 |
| | **Fallbrook Total** | **10,442** |
| Jamul/Dulzura | Commercial | 53 |
| | Open Space | 3,154 |
| | Public/Semi-Public Facilities | 1,709 |
| | Rural Lands | 2,032 |
| | Semi-rural Residential | 1,362 |
| | Specific Plan Area | 12 |
| | **Jamul/Dulzura Total** | **8,322** |
| Julian | Commercial | 154 |
| | Industrial | 43 |
| | Open Space | 431 |
| | Public/Semi-Public Facilities | 367 |
| | Rural Lands | 1,220 |
| | Semi-rural Residential | 2,554 |
| | **Julian Total** | **4,768** |
| Lakeside | Commercial | 1,398 |
| | Industrial | 343 |
| | Office Professional | 1 |
| | Open Space | 1,902 |
| | Public/Semi-Public Facilities | 193 |
| | Rural Lands | 620 |

**Table 2.6-12 (Continued)**

| CPA or Subregion | Proposed Land Use | Acres with Potential Liquefaction Hazard |
|---|---|---|
| | Semi-rural Residential | 27,638 |
| | Specific Plan Area | 432 |
| | Village Residential | 849 |
| | **Lakeside Total** | **33,376** |
| Mountain Empire | Commercial | 67 |
| | National Forest and State Parks | 255 |
| | Open Space | 7,338 |
| | Public/Semi-Public Facilities | 1,345 |
| | Rural Lands | 3,251 |
| | Semi-rural Residential | 15,713 |
| | Specific Plan Area | 129 |
| | Tribal Lands | 259 |
| | Village Residential | 242 |
| | **Mountain Empire Total** | **28,599** |
| North County Metro | Commercial | 13 |
| | Open Space | 363 |
| | Public/Semi-Public Facilities | 147 |
| | Rural Lands | 1,462 |
| | Semi-rural Residential | 3,781 |
| | Village Residential | 66 |
| | **North County Metro Total** | **5,832** |
| North Mountain | Commercial | 36 |
| | National Forest and State Parks | 982 |
| | Open Space | 1,332 |
| | Public/Semi-Public Facilities | 22 |
| | Rural Lands | 1,249 |
| | Semi-rural Residential | 3,295 |
| | Specific Plan Area | 550 |
| | Tribal Lands | 182 |
| | Village Residential | 8 |
| | **North Mountain Total** | **7,656** |
| Otay | Open Space | 1,034 |
| | Public/Semi-Public Facilities | 5 |
| | **Otay Total** | **1,039** |
| Pala/Pauma Valley | Commercial | 219 |
| | Open Space | 18,149 |
| | Public/Semi-Public Facilities | 76 |
| | Rural Lands | 1,480 |
| | Semi-rural Residential | 2,968 |

**Table 2.6-12 (Continued)**

| CPA or Subregion | Proposed Land Use | Acres with Potential Liquefaction Hazard |
|---|---|---|
| | Tribal Lands | 67 |
| | Village Residential | 199 |
| | **Pala/Pauma Total** | **23,158** |
| Pendleton/De Luz | Military Installations | 46 |
| | National Forest and State Parks | 1,551 |
| | Open Space | 869 |
| | Public/Semi-Public Facilities | 12 |
| | Rural Lands | 155 |
| | Semi-rural Residential | 2 |
| | **Pendleton/De Luz Total** | **2,635** |
| Rainbow | Industrial | 49 |
| | Public/Semi-Public Facilities | 677 |
| | Rural Lands | 12 |
| | Semi-rural Residential | 1,258 |
| | Village Residential | 49 |
| | **Rainbow Total** | **2,045** |
| Ramona | Commercial | 164 |
| | Industrial | 797 |
| | Office Professional | 5 |
| | Open Space | 1,674 |
| | Public/Semi-Public Facilities | 847 |
| | Rural Lands | 341 |
| | Semi-rural Residential | 12,971 |
| | Specific Plan Area | 10 |
| | Tribal Lands | 195 |
| | Village Residential | 966 |
| | **Ramona Total** | **17,970** |
| San Dieguito | Commercial | 1 |
| | Office Professional | 2 |
| | Open Space | 11,520 |
| | Public/Semi-Public Facilities | 214 |
| | Rural Lands | 629 |
| | Semi-rural Residential | 145 |
| | Specific Plan Area | 118 |
| | **San Dieguito Total** | **12,629** |
| Spring Valley | Commercial | 26 |
| | Industrial | 411 |
| | Office Professional | 7 |
| | Open Space | 153 |
| | Public/Semi-Public Facilities | 117 |
| | Specific Plan Area | 185 |

**Table 2.6-12 (Continued)**

| CPA or Subregion | Proposed Land Use | Acres with Potential Liquefaction Hazard |
|---|---|---|
| | Specific Plan Area | 3 |
| | Village Residential | 67 |
| | **Spring Valley Total** | **968** |
| Sweetwater | Commercial | 111 |
| | Office Professional | 110 |
| | Open Space | 610 |
| | Public/Semi-Public Facilities | 177 |
| | Semi-rural Residential | 2,965 |
| | Village Residential | 1,591 |
| | **Sweetwater Total** | **5,564** |
| Valle De Oro | Open Space | 185 |
| | Public/Semi-Public Facilities | 158 |
| | Rural Lands | 175 |
| | Semi-rural Residential | 1,325 |
| | Specific Plan Area | 352 |
| | Village Residential | 1,720 |
| | **Valle De Oro** | **3,915** |
| Valley Center | Commercial | 210 |
| | Industrial | 476 |
| | Open Space | 350 |
| | Public/Semi-Public Facilities | 106 |
| | Rural Lands | 674 |
| | Semi-rural Residential | 11,767 |
| | Specific Plan Area | 758 |
| | Tribal Lands | 27 |
| | Village Core Mixed Use | 64 |
| | Village Residential | 749 |
| | **Valley Center Total** | **15,181** |
| | **Unincorporated Countywide Total** | **231,964** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.6-13. Proposed Land Use Designations in Areas with Potential Expansive Soils Hazard

| Proposed Land Use Designation | Acres on Potentially Expansive Soil |
|---|---|
| Commercial | 5,334 |
| Industrial | 2,100 |
| Military Installations | 3,538 |
| National Forest and State Parks | 9,135 |
| Office Professional | 1,599 |
| Open Space | 10,351 |
| Public/Semi-Public Facilities | 10,595 |
| Rural Lands | 26,995 |
| Semi-rural Residential | 65,586 |
| Specific Plan Area | 7,128 |
| Tribal Lands | 1,294 |
| Village Core Mixed Use | 36 |
| Village Residential | 34,783 |
| **Countywide Total** | **178,474** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.6-14. Proposed Land Use Designations in Areas with Potential Expansive Soils Hazard by Community

| CPA or Subregion | Proposed Land Use Designation | Acres with Potential Expansive Soil Hazard |
|---|---|---|
| Alpine | Industrial | 21 |
| | National Forest and State Parks | 124 |
| | Open Space | 14 |
| | Public/Semi-Public Facilities | 56 |
| | Rural Lands | 56 |
| | Semi-rural Residential | 70 |
| | Tribal Lands | 203 |
| | Village Residential | 77 |
| | **Alpine Total** | **621** |
| Bonsall | Commercial | 29 |
| | Office Professional | 4 |
| | Open Space | 261 |
| | Public/Semi-Public Facilities | 147 |
| | Rural Lands | 157 |
| | Semi-rural Residential | 35,071 |
| | Specific Plan Area | 2,266 |
| | Village Residential | 17,623 |
| | **Bonsall Total** | **55,558** |
| Central Mountain | National Forest and State Parks | 8,261 |
| | Open Space | 4 |
| | Public/Semi-Public Facilities | 7 |
| | Rural Lands | 38 |
| | Semi-rural Residential | 14 |
| | Tribal Lands | 5 |
| | Village Residential | 3 |
| | **Central Mountain Total** | **8,332** |
| County Islands | Public/Semi-Public Facilities | 38 |
| | Rural Lands | 4 |
| | Village Residential | 152 |
| | **County Islands Total** | **194** |
| Crest/Dehesa | Commercial | 28 |
| | Open Space | 139 |
| | Public/Semi-Public Facilities | 242 |
| | Rural Lands | 3,130 |
| | Semi-rural Residential | 2,508 |
| | Specific Plan Area | 92 |
| | **Crest/Dehesa Total** | **6,139** |
| Desert | Commercial | 163 |
| | National Forest and State Parks | 208 |
| | Open Space | 6 |
| | Public/Semi-Public Facilities | 1,469 |

**Table 2.6-14 (Continued)**

| CPA or Subregion | Proposed Land Use Designation | Acres with Potential Expansive Soil Hazard |
|---|---|---|
| | Rural Lands | 1,389 |
| | Semi-rural Residential | 1,344 |
| | Specific Plan Area | 189 |
| | Village Residential | 27 |
| | **Desert Total** | **4,795** |
| Fallbrook | Commercial | 235 |
| | Industrial | 375 |
| | Office Professional | 1 |
| | Open Space | 1,787 |
| | Public/Semi-Public Facilities | 217 |
| | Rural Lands | 574 |
| | Semi-rural Residential | 1,116 |
| | Specific Plan Area | 157 |
| | Village Core Mixed Use | 11 |
| | Village Residential | 379 |
| | **Fallbrook Total** | **4,851** |
| Jamul/Dulzura | Commercial | 52 |
| | National Forest and State Parks | 12 |
| | Office Professional | 2 |
| | Open Space | 444 |
| | Public/Semi-Public Facilities | 49 |
| | Rural Lands | 845 |
| | Semi-rural Residential | 520 |
| | Specific Plan Area | 4 |
| | Tribal Lands | 7 |
| | **Jamul/Dulzura Total** | **1,935** |
| Julian | Open Space | 3 |
| | Rural Lands | 4 |
| | **Julian Total** | **7** |
| Lakeside | Commercial | 65 |
| | Industrial | 25 |
| | Office Professional | 18 |
| | Open Space | 825 |
| | Public/Semi-Public Facilities | 159 |
| | Rural Lands | 509 |
| | Semi-rural Residential | 880 |
| | Specific Plan Area | 222 |
| | Village Residential | 507 |
| | **Lakeside Total** | **3,210** |

**Table 2.6-14 (Continued)**

| CPA or Subregion | Proposed Land Use Designation | Acres with Potential Expansive Soil Hazard |
|---|---|---|
| Mountain Empire | Commercial | 66 |
| | Industrial | 44 |
| | National Forest and State Parks | 74 |
| | Open Space | 461 |
| | Public/Semi-Public Facilities | 288 |
| | Rural Lands | 3,183 |
| | Semi-rural Residential | 442 |
| | Specific Plan Area | 13 |
| | **Mountain Empire Total** | **4,571** |
| North County Metro | Commercial | 1,171 |
| | Industrial | 600 |
| | Office Professional | 1,264 |
| | Open Space | 897 |
| | Public/Semi-Public Facilities | 1,899 |
| | Rural Lands | 6,904 |
| | Semi-rural Residential | 12,547 |
| | Specific Plan Area | 2,135 |
| | Village Residential | 9,702 |
| | **North County Metro Total** | **37,119** |
| North Mountain | National Forest and State Parks | 325 |
| | Open Space | 11 |
| | Rural Lands | 1,126 |
| | **North Mountain Total** | **1,462** |
| Otay | Open Space | 283 |
| | Public/Semi-Public Facilities | 230 |
| | Rural Lands | 191 |
| | Specific Plan Area | 469 |
| | **Otay Total** | **1,173** |
| Pala/Pauma Valley | Open Space | 43 |
| | Public/Semi-Public Facilities | 206 |
| | Rural Lands | 1,508 |
| | Semi-rural Residential | 146 |
| | Tribal Lands | 703 |
| | **Pala/Pauma Total** | **2,606** |
| Pendleton/De Luz | Military Installations | 3,538 |
| | National Forest and State Parks | 131 |
| | Rural Lands | 2,126 |
| | Semi-rural Residential | 171 |
| | **Pendleton/De Luz Total** | **5,966** |

**Table 2.6-14 (Continued)**

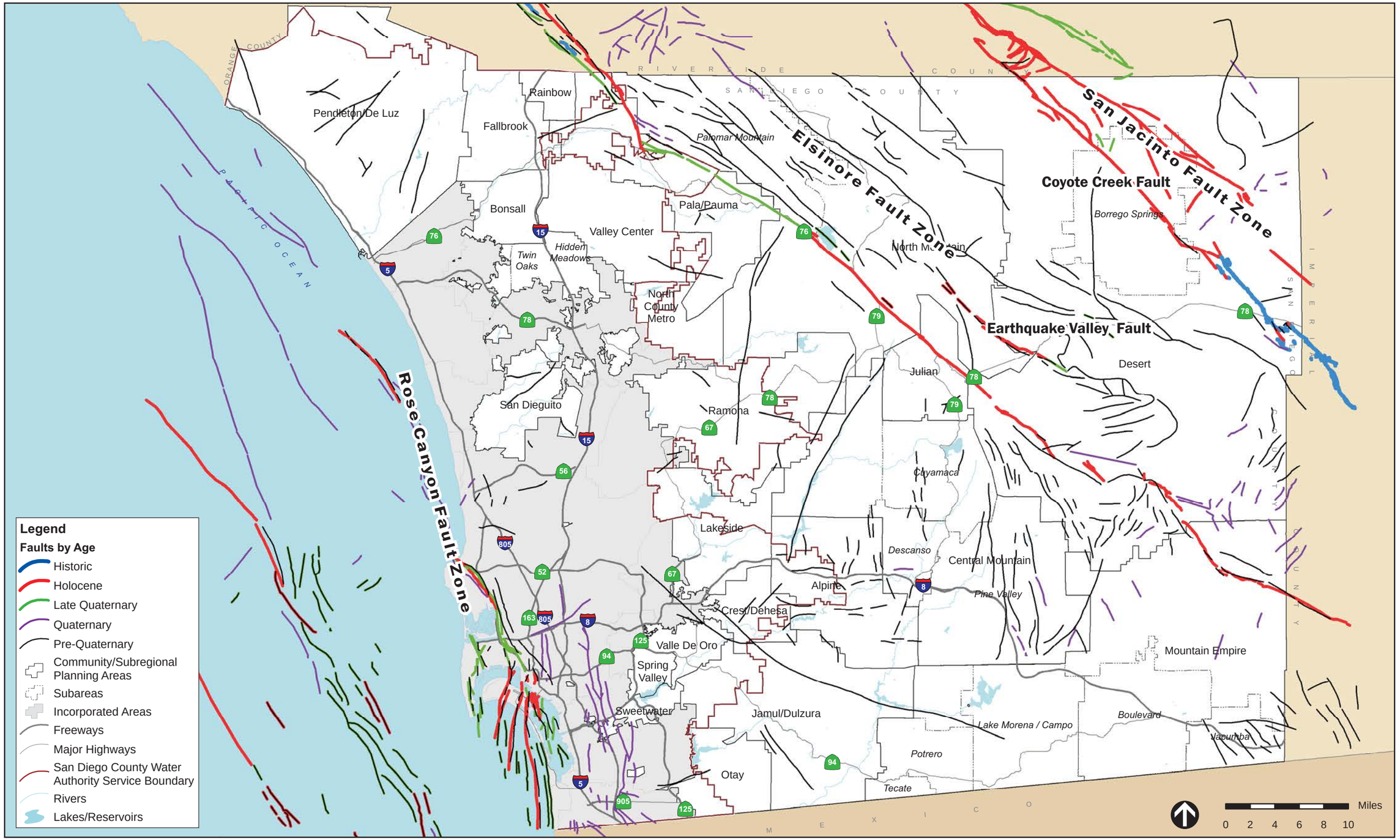
| CPA or Subregion | Proposed Land Use Designation | Acres with Potential Expansive Soil Hazard |
|---|---|---|
| Rainbow | Commercial | 8 |
| | Industrial | 12 |
| | Open Space | 19 |
| | Public/Semi-Public Facilities | 488 |
| | Rural Lands | 1,459 |
| | Semi-rural Residential | 1,081 |
| | Village Residential | 8 |
| | **Rainbow Total** | **3,075** |
| Ramona | Commercial | 499 |
| | Industrial | 450 |
| | Office Professional | 30 |
| | Open Space | 2,368 |
| | Public/Semi-Public Facilities | 2,835 |
| | Rural Lands | 1,971 |
| | Semi-rural Residential | 3,395 |
| | Specific Plan Area | 103 |
| | Tribal Lands | 49 |
| | Village Residential | 494 |
| | **Ramona Total** | **12,194** |
| San Dieguito | Commercial | 12 |
| | Open Space | 1,486 |
| | Public/Semi-Public Facilities | 950 |
| | Rural Lands | 942 |
| | Semi-rural Residential | 4,675 |
| | Specific Plan Area | 1,071 |
| | Village Core Mixed Use | 20 |
| | Village Residential | 1,103 |
| | **San Dieguito Total** | **10,259** |
| Spring Valley | Commercial | 2,712 |
| | Industrial | 473 |
| | Office Professional | 65 |
| | Open Space | 107 |
| | Public/Semi-Public Facilities | 148 |
| | Semi-rural Residential | 210 |
| | Specific Plan Area | 13 |
| | Village Residential | 2,499 |
| | **Spring Valley Total** | **6,227** |
| Sweetwater | Commercial | 39 |
| | Open Space | 943 |
| | Public/Semi-Public Facilities | 729 |
| | Rural Lands | 12 |

**Table 2.6-14 (Continued)**

| CPA or Subregion | Proposed Land Use Designation | Acres with Potential Expansive Soil Hazard |
|---|---|---|
| | Semi-rural Residential | 410 |
| | Village Residential | 563 |
| | **Sweetwater Total** | **2,696** |
| Valle De Oro | Commercial | 142 |
| | Industrial | 19 |
| | Open Space | 150 |
| | Public/Semi-Public Facilities | 246 |
| | Semi-rural Residential | 92 |
| | Specific Plan Area | 72 |
| | Village Residential | 361 |
| | **Valle De Oro Total** | **1,082** |
| Valley Center | Commercial | 114 |
| | Industrial | 81 |
| | Office Professional | 216 |
| | Open Space | 100 |
| | Public/Semi-Public Facilities | 192 |
| | Rural Lands | 867 |
| | Semi-rural Residential | 894 |
| | Specific Plan Area | 322 |
| | Tribal Lands | 209 |
| | Village Core Mixed Use | 5 |
| | Village Residential | 1,285 |
| | **Valley Center Total** | **4,285** |
| | **Unincorporated Countywide Total** | **178,475** |

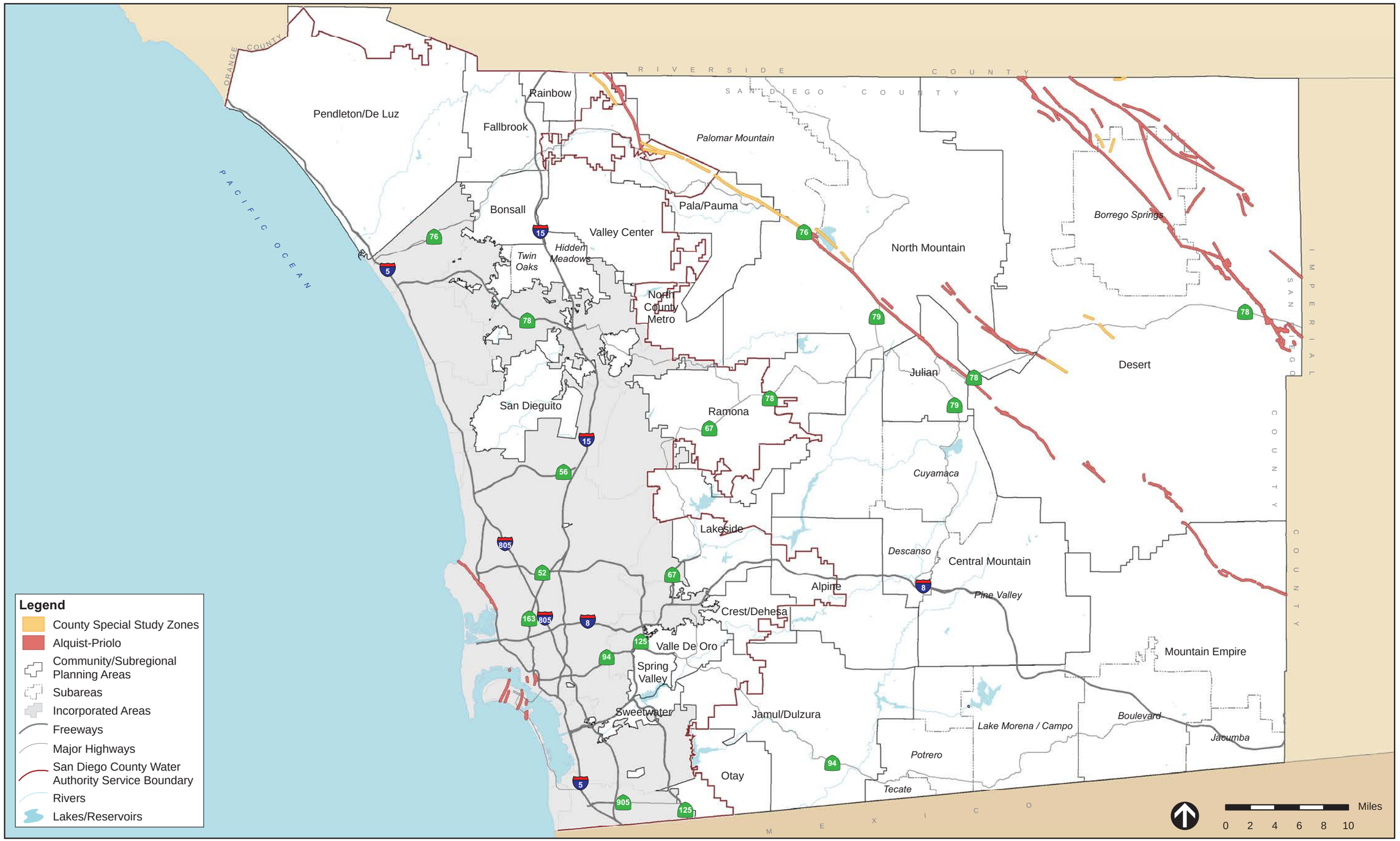
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

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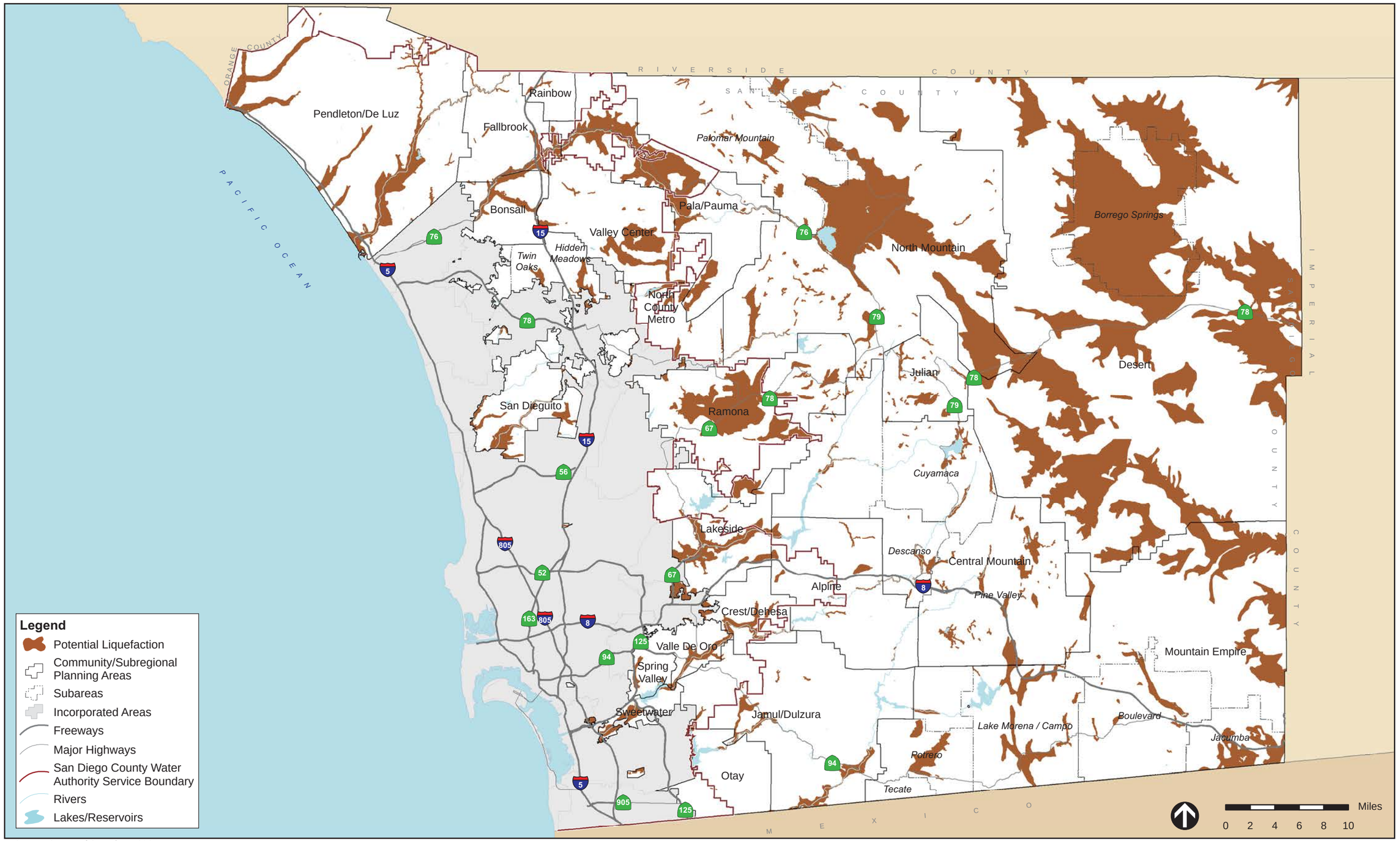

Source: County of San Diego, 2007

**MAPPED FAULTS** **FIGURE 2.6-1**



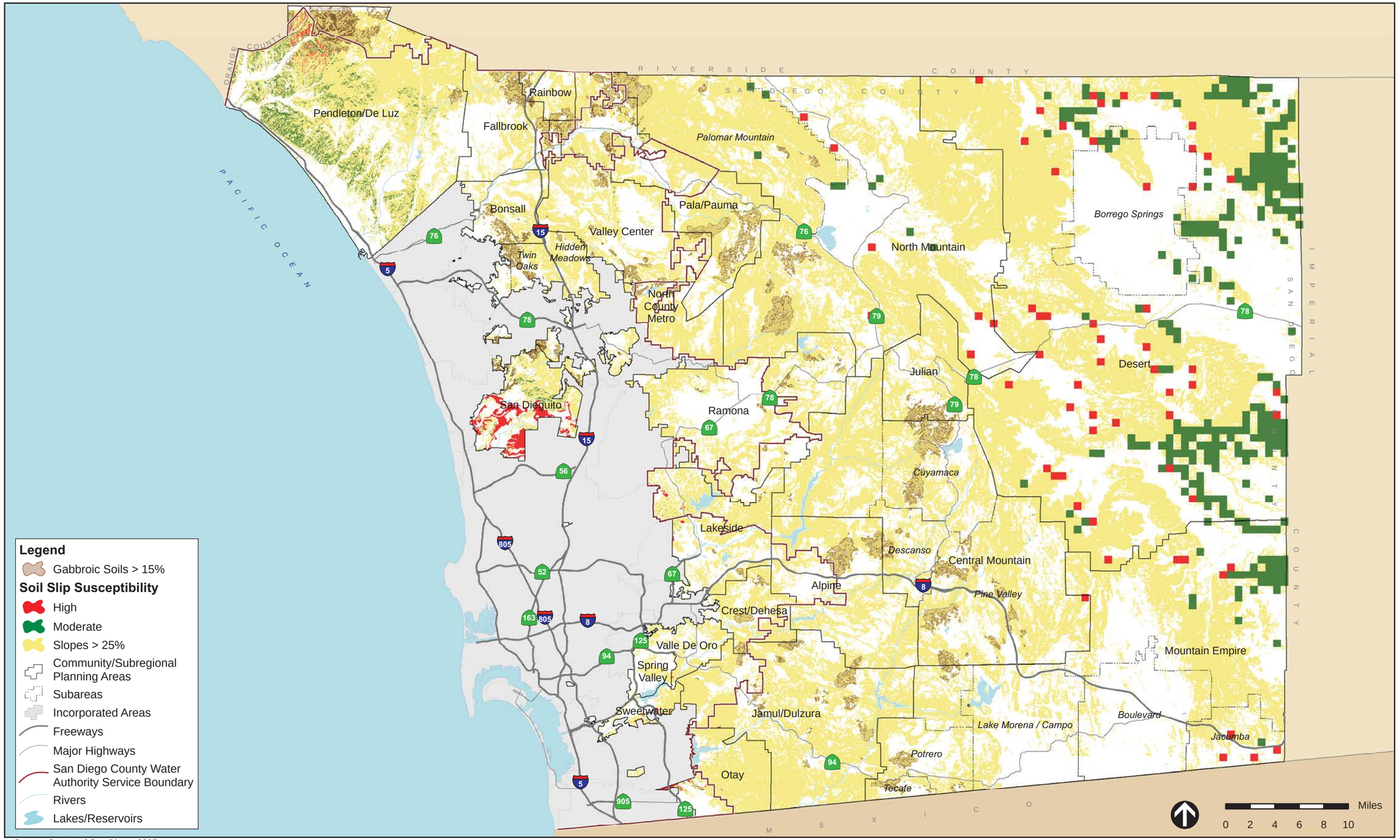

Source: County of San Diego, 2007

**ALQUIST-PRIOLO AND COUNTY SPECIAL STUDY FAULT ZONES** **FIGURE 2.6-2**




Source: County of San Diego, 2007

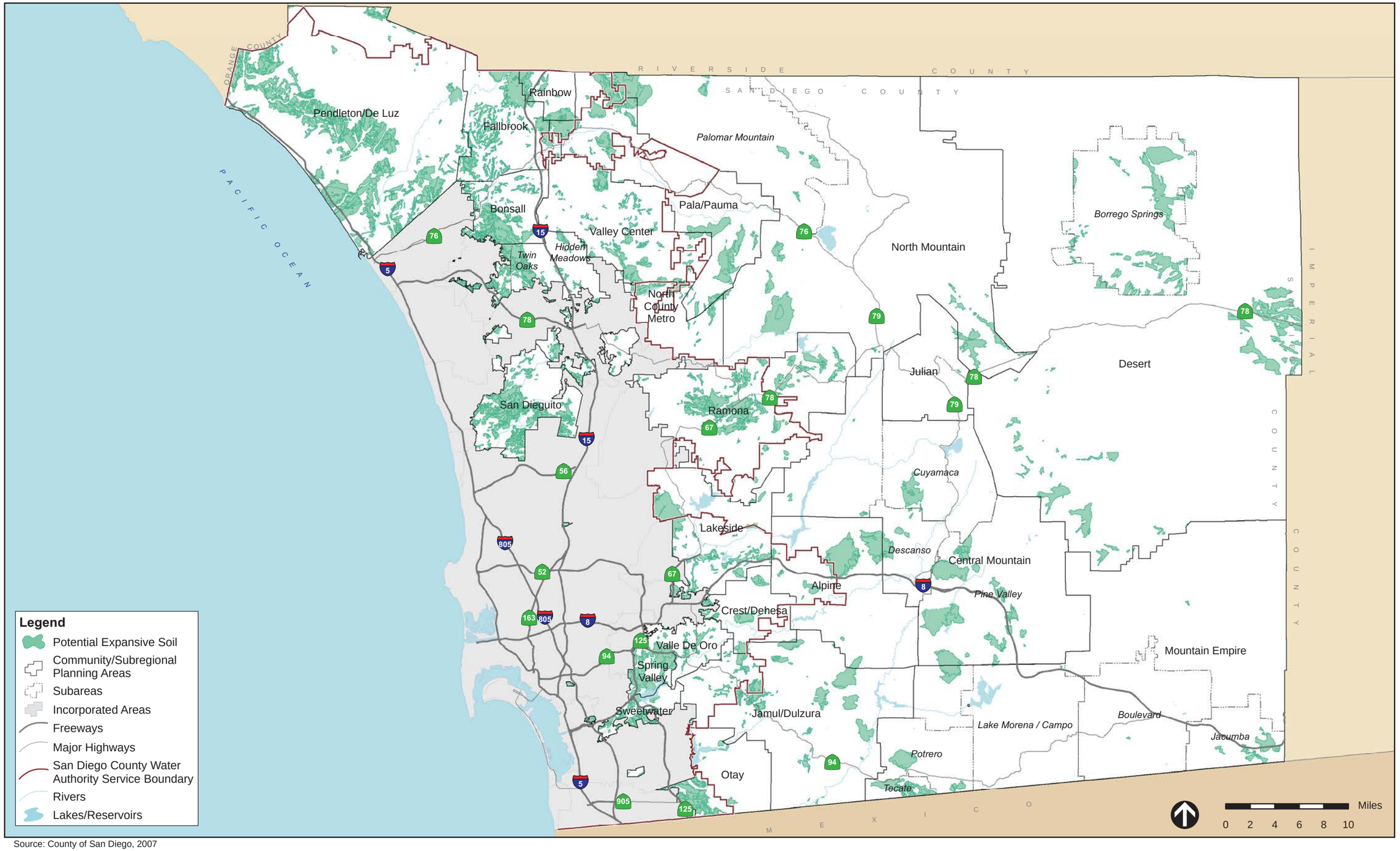
**POTENTIAL LIQUEFACTION AREAS** **FIGURE 2.6-3**




Source: County of San Diego, 2007

## LANDSLIDE SUSCEPTIBILITY AREAS

## FIGURE 2.6-4




Source: County of San Diego, 2007

**POTENTIAL EXPANSIVE SOIL AREAS** **FIGURE 2.6-5**

# 2.7 Hazards and Hazardous Materials

This section of the EIR describes the existing hazardous materials, airport, wildland fire, vector, and emergency response and evacuation plan conditions in San Diego County. This section also analyzes the proposed County General Plan Update and its potential to have a significant impact on public safety, health or the environment. Information contained in the following section has been incorporated from County of San Diego Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (DPLU 2007m), County of San Diego Guidelines for Determining Significance, Airport Hazards (DPLU 2007h), County of San Diego Guidelines for Determining Significance, Emergency Response Plans (DPLU 2007j), County of San Diego Guidelines for Determining Significance, Wildland Fire and Fire Protection (DPLU 2008e), County of San Diego Guidelines for Determining Significance, Vectors (DPLU 2009e), County of San Diego General Plan Safety Element Background Report (DPLU 2007e), County of San Diego General Plan Land Use Element Background Report (DPLU 2007c) and additional resources as cited throughout the section.

A summary of the hazards and hazardous materials impacts identified in Section 2.7.3 is provided below.

**Hazards and Hazardous Materials Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Transport, Use and Disposal of Hazardous Materials | Less Than Significant | Less Than Significant | Less Than Significant |
| 2 | Accidental Release of Hazardous Materials | Less Than Significant | Less Than Significant | Less Than Significant |
| 3 | Hazards to Schools | Less Than Significant | Less Than Significant | Less Than Significant |
| 4 | Existing Hazardous Materials Sites | Less Than Significant | Less Than Significant | Less Than Significant |
| 5 | Public Airports | Potentially Significant | Less Than Significant | Less Than Significant |
| 6 | Private Airports | Potentially Significant | Less Than Significant | Less Than Significant |
| 7 | Emergency Response and Evacuation Plans | Potentially Significant | Less Than Significant | Less Than Significant |
| 8 | Wildland Fires | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 9 | Vectors | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.7.1 Existing Conditions

This section of the EIR is divided into five discussions of potential hazards to public safety and the environment: hazardous materials, airports, wildland fires, vectors and emergency response and evacuation plans. The discussion on hazardous materials describes sites with known hazardous materials issues, sites with potential hazardous materials issues, hazardous materials transportation, hazardous materials disposal and hazardous materials release threats. The discussion on airports examines existing airport facilities and potential operational hazards within the County. The wildland fires discussion examines fire threat hazards, wildland/urban interface areas, and the history of wildland fires in the County. The vectors discussion identifies

vector sources, populations and associated diseases. Finally, the discussion on emergency response and evacuation plans identifies operations and plans that exist to protect lives and property in the event of a disaster within the County.

### *2.7.1.1 Hazardous Materials*

Hazardous materials are commonly stored and used by a variety of businesses and are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. The California Health and Safety Code defines a hazardous material as:

> "Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (H&SC Section 25501)

The following discussion outlines the existing hazardous materials conditions in the County.

**Sites with Known Hazardous Materials Issues**

A variety of government data sources are available to identify sites that may have been subject to a release of hazardous substances or that may have supported a use that could have resulted in a hazardous condition on site. Listed below are some key sources of data that identify potential environmental conditions and historical uses that may represent a hazardous condition on specific properties.

1. Hazardous Waste and Substances sites from California EPA Department of Toxic Substances Control (DTSC) EnviroStor database;
2. Leaking Underground Storage Tank Sites by County and Fiscal Year from the State Water Resources Control Board (SWRCB) GeoTracker database;
3. Solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
4. Active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB;
5. Hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (H&SC), identified by DTSC;
6. Active and closed solid waste sites (Solid Waste Inventory System-SWIS database) maintained by the California Integrated Waste Management Board;
7. Hazardous Materials Establishment Listing maintained by the County of San Diego;
8. The County of San Diego maintains the Site Assessment and Mitigation (SAM) Case Listing of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions;

9. Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by EPA;
10. The U.S. Army Corps of Engineers (ACOE), 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS); and
11. The DTSC School Property Evaluation and Cleanup Division is responsible for assessing, investigating and cleaning up proposed school sites. A list is maintained by DTSC of school properties with environmental assessments and the findings.

As of January 2007, all databases listed above (with the exception of database 3 - list of solid waste disposal sites identified by SWRCB, database 5 - list of hazardous waste facilities subject to corrective action by H&SC, and database 11 - DTSC school property list) have identified sites located in unincorporated areas of San Diego County. Databases with sites located in the unincorporated County are discussed below. Sites listed in the RCRIS and the Hazardous Materials Establishment databases are not included in this discussion because information contained in these databases is repetitive of other databases.

**DTSC EnviroStor Database**

This list includes the following site types: Federal Superfund Sites (National Priorities List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. Information includes site name, site type, status, address, any restricted use (recorded deed restrictions), past use(s) that caused contamination, potential contaminants of concern, potential environmental media affected, site history, planned and completed activities.

In the entire County of San Diego there are over 150 sites listed on the EnviroStor database. Approximately 22 of these are located in the unincorporated communities of Ramona, Borrego Springs, Fallbrook, Campo, Jacumba, Cuyamaca, Tecate, Boulevard, Rancho Santa Fe, Warner Springs, Pine Valley, Mount Laguna, and Lakeside (DTSC 2008b).

**GeoTracker Database**

The GeoTracker database is a geographic information system that provides online access to environmental data including underground fuel tanks, fuel pipelines and public drinking water supplies. GeoTracker contains information about leaking underground fuel tanks (LUFT) and can identify and display LUFT sites within various distances of wells. This provides users with the ability to assess potential threats to their drinking water sources. GeoTracker also has information and data on non-LUFT cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense Sites, and Land Disposal programs.

In the entire County of San Diego there are almost 8,000 sites listed in the GeoTracker Database. Of these 8,000, 66 are listed as “Open” and of these, 19 are located in the unincorporated communities of Camp Pendleton, Descanso, Ramona, Campo, Mt. Laguna, and Lakeside. All 19 sites are classified as LUFT (GeoTracker 2008).

### Active CDO and CAO List

The list of active CDO and CAO from the SWRCB is a compilation of "all cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13004 of the Water Code, that concern the discharge of wastes that are hazardous materials." The orders that are "active," meaning the necessary actions have not yet been completed, are on this list. The SWRCB updates this list by deleting sites when there is no longer any discharge of wastes and/or where the necessary cleanup or abatement actions were taken.

In the entire County of San Diego there are over 150 "active" CDO and/or CAO sites listed. Approximately 42 of these are located in the unincorporated communities of Borrego Springs, Camp Pendleton, Lakeside, Ramona, Rancho Santa Fe, and Valley Center (CalEPA 2008).

### SWIS Database

The SWIS database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, closed disposal sites, transfer stations, materials recovery facilities, composting sites, transformation facilities, waste tire sites, and construction, demolition and inert debris facilities and operations. For each facility, the database contains information about location, owner, operator, facility type, regulatory and operational status, authorized waste types, local enforcement agency and inspection and enforcement records.

There are 95 facility/site listings within both the incorporated and unincorporated areas of San Diego County which are under the jurisdiction of the County of San Diego Local Enforcement Agency (SWIS 2008).

### County of San Diego Site Assessment and Mitigation (SAM) Program Case Listing

The San Diego County SAM Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC and the CCR. The SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances. The DEH SAM Program maintains the SAM list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions.

The SAM Program covers all of San Diego County and includes remediation sites of all sizes. The SAM case listing is revised and updated regularly and the number of sites on the list is continually changing, but may contain upwards of 5,000 cases at one time. There is some overlap with the information in other regulatory databases; however, the list also contains sites that often are not covered by some of the larger regulatory databases. If a project is submitted to the County for discretionary review and is located on a site found on the SAM list, the project's status must be determined and any ongoing remediation requirements coordinated with the DEH SAM project manager.

### Formerly Used Defense Sites (FUDS) Listing

The ACOE maintains a list of FUDS within the unincorporated County. FUDS are real properties that were under the jurisdiction of the Secretary of Defense and owned by, leased by, or otherwise possessed by the U.S. FUDS are located throughout the U.S. and in many cases the ownership of these properties have been transferred to private individuals, corporations, State and local governments, federal agencies, and tribal governments. FUDS include, but are not limited to hazardous, toxic and radioactive waste; military munitions including munitions constituents; containerized hazardous, toxic and radioactive waste; building demolition and debris removal; and potentially responsible party sites (government shares burden with private entity).

There are approximately 146 FUDS in San Diego County, including FUDS within incorporated cities. Many FUDS have potential hazardous waste contamination problems such as disposal areas and LUFTs. Other FUDS utilized practice rounds for training, and some FUDS used live munitions and explosives, known collectively as ordnance and explosives. The live munitions that were fired but did not detonate are known as unexploded ordnance, or UXO. The UXO that remain on FUDS properties today pose the greatest safety hazard to the public, if they are disturbed. Figure 2.7-1 identifies the approximate location of UXO/FUDS within the County and their associated risk assessment code, which is a cumulative score of both the hazard probability and the hazard severity of the site. Sites are ranked on a one to four scale, one being at the most risk for and increased hazard to the public and environment. Many FUDS sites in San Diego County are under investigation by the ACOE to identify and remediate potential hazards. High risk FUDS sites, with scores of one or two, are located in the communities of Lakeside, Otay and Campo/Lake Morena. FUDS sites with lower risk are located with the communities of Borrego Springs and Ramona.

## Sites with Potential Hazardous Materials Issues

A variety of historical land uses and conditions could potentially result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historic land uses that have the potential to result in current site contamination include burnsites, landfills, formerly used defense sites, agriculture, and petroleum storage.

### Burn Dump Sites

Burn ash refers to the debris, refuse, ash, and ash-contaminated soil that result from the open burning of municipal solid waste. Burn dump sites refer to locations where the open burning of solid waste occurred. From the late 1800s to the early 1970s, the open burning of solid waste was a common practice. After the waste was burned soil was placed over the debris, which typically consisted of unburned metal and ash. Ash from the open burning of municipal solid waste is the most common, but not the only source of burn ash. Historically, some open burning and low temperature incineration did occur with specific commercial waste streams, often disposed of on site.

Burn ash can be commingled with other solid wastes, including incompletely burned refuse. There are many environmental issues and concerns regarding the management of former burn dump sites. Burn ash may contain concentrations of heavy metals, such as lead, that may be a

potential risk to human health and, if excavated, may need to be disposed as either a California or RCRA hazardous waste.

When properly managed, burn dump sites pose little to no potential risk to the environment or public health. During development activities, soil containing burn ash must be properly managed. This includes minimizing dust migration and using appropriate BMPs to prevent surface erosion and the transportation of the burn ash. If the soil is to be exported from the site, care must be taken to ensure that it is disposed at an appropriate disposal facility

The County Department of Public Works Landfill Management Unit manages six former burn dump sites within the County. Additional burn dump sites throughout the County are managed either by private property owners or other jurisdictions. Figure 2.7-2 identifies the location of burn dump sites within the County.

**Landfills**

Active, abandoned, and closed landfills present potential issues related to the exposure of humans to hazards, such as landfill gas migration, when a project is proposed on or near a landfill site. Active landfills located within the County are shown in Figure 2.7-2. Landfill capacity is discussed in Section 2.16, Utilities and Service Systems.

***Active Landfills***

There are seven active landfills in the San Diego region that serve the residents, businesses, and military operations of both incorporated and unincorporated areas. The Sycamore, Otay, Ramona, and Borrego landfills are owned and operated by the private waste service company, Allied Waste Industries. Las Pulgas and San Onofre landfills are owned and operated by the USMC, and the Miramar Landfill is owned and operated by the City of San Diego. The USMC-operated landfills are not available for public disposal. Table 2.7-1 identifies existing land uses that surround active landfills.

***Transfer Stations***

Solid waste not placed directly in the landfills is deposited temporarily in several privately operated transfer stations or rural bin sites located throughout the County. In Section 2.16, Utilities of this EIR, Table 2.16-6 identifies the location of these transfer stations and the amount of solid waste that is transferred there annually. The region's transfer stations and bin sites play a vital role in accommodating throughput to landfills, serving as collection and separation points of solid waste and recyclables.

***Inactive Landfills***

The Landfill Management Unit of the County Public Works Department manages and maintains 11 closed landfills throughout the county and San Diego metro area, and maintains the gas collection system at the Bell Jr. High Landfill located in the City of San Diego. At least five other closed landfills are maintained by other parties. Although closed landfill sites no longer accept solid waste, there is a great deal of maintenance required to keep them environmentally safe. At inactive landfills, the County and others monitor landfill gas and maintain active landfill gas control systems, maintain the soil cover system, monitor groundwater quality and surface water, and maintain storm water BMPs to ensure that closed landfills do not pollute surface or ground water, or pose an explosion or health hazard.

### Historic Agriculture

Agricultural activities include the application of fertilizers, herbicides, and pesticides that have the potential to contaminate soil and groundwater. Soils contaminated by past agricultural activities are a growing concern, generally because of land use changes involving proposed housing developments on former agricultural lands. Pesticides from historic or nearby land use have the potential to leach into groundwater resources and cause contamination in public or private drinking water wells. Investigation of suspected pesticide contamination on properties proposed for development typically includes soil and groundwater sampling in areas where materials were stored, handled, and mixed in addition to identifying the historical crops grown, pesticides applied, and the methods of application. The investigation and any remedial actions related to pesticide contamination focuses on the elimination of human or environmental exposure. Constituents of concern at former agricultural sites include organochlorine pesticides and metals, which may pose a human health risk. Figure 2.2-3 in Section 2.2, Agriculture, identifies the location of agricultural resources within the County. Agricultural resources are defined as any land with an active agricultural operation or any site with a history of agricultural production, including land used for the raising of livestock, fur bearing animals, fish or poultry and dairying. Much of the agricultural land within the County and shown on Figure 2.2-3 is used for grazing or dry land farming activities that typically do not require significant pesticide use. The evaluation and any remedial actions as a result of contaminated soils on agricultural lands should be focused on the potential for human health exposure.

### Petroleum

Petroleum hydrocarbons are the most commonly used group of chemicals in society today. Petroleum hydrocarbons encompass a wide range of compounds including, but not limited to fuels, oils, paints, dry cleaning solvents, and non-chlorinated solvents. These compounds are used in all facets of modern life and can cause soil and groundwater contamination if not properly handled. Underground storage tanks (USTs) and aboveground storage tanks (ASTs) that store petroleum are common sources of contamination into soils and groundwater in the County. The presence of such contamination is typically identified during removal of these tanks. Property owners with USTs and ASTs on their land often include marketers who sell gasoline to the public, such as service stations and convenience stores, or non-marketers who use tanks solely for their own needs, such as fleet service operators or agricultural users. Leaking USTs can result in vapor intrusion from volatile organic compounds (VOC) and benzene into homes when chemicals seep down into the soil and groundwater and travel through soil as vapor. These vapors may then move up through the soil and into nearby buildings, through cracks in the foundation, causing contamination of indoor air. While vapor intrusion is uncommon, it should be considered when there is a known source of soil or groundwater contamination nearby.

## Hazardous Waste Transportation

In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the DTSC. The DTSC maintains a list of active registered hazardous waste transporters throughout the State. There are five registered hazardous waste transporters within the unincorporated areas of San Diego County. The name, location and company services of these transporters are listed in Table 2.7-2

The process of transporting hazardous waste often involves transfer facilities. A transfer facility is any facility that is not an on-site facility that is related to the transportation of waste. These facilities include but are not limited to, loading docks, parking areas, storage areas, and other similar areas. Although not all transfer facilities hold hazardous waste, any operator of a facility that accepts hazardous waste for storage, repackaging or bulking must obtain formal authorization for those activities through the hazardous waste permit process. Hazardous waste transporters are exempt from storage facility permit requirements so long as they observe the limits on storage time and handling.

Hazardous Waste Transfer facilities fall into three main categories:

1. An exempt transfer facility operated by a registered transporter,
2. A transfer facility operating under the authority of a RCRA permit, and
3. A transfer facility operating under the authority of a Standardized Permit.

Table 2.7-3 provides general characteristics of each hazardous waste transfer facilities category. A transfer facility may be either permitted or exempt. The permit authorizes the activities and establishes the conditions that must be followed by the operator of a permitted transfer facility. Exempt facilities are owned and operated by the transporter of the waste.

## Hazardous Materials Disposal

Through the Resource Conservation and Recovery Act (RCRA), Congress directed the EPA to create regulations that manage hazardous waste from "the cradle to the grave." Under this mandate, the EPA has developed strict requirements for all aspects of hazardous waste management including the recycling, treatment, storage, and disposal of hazardous waste. Facilities that provide recycling, treatment, storage, and disposal of hazardous waste are referred to as Treatment, Storage and Disposal Facilities (TSDF). Regulations pertaining to TSDFs are designed to prevent the release of hazardous materials into the environment and are more stringent than those that apply to generators or transporters. Within the unincorporated County, multiple TSDF sites exist, such as those owned and operated by the U.S. Military and the San Diego Gas and Electric Company.

## Hazardous Materials Release Threats

When unexpectedly released into the environment, hazardous materials may create a significant hazard to the public or environment. Hazardous materials are commonly stored and used by a variety of businesses within the County and could be released into the environment through improper handling or accident conditions. The following business plans and response systems are in place to help prevent hazardous material release threats.

### Hazardous Materials Business Plans

Any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a Hazardous Materials Business Plan (HMBP). HMBPs intend to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs. A HMBP includes three sections: 1) an inventory of hazardous materials, including a site map, which

details their location; 2) an emergency response plan; and 3) an employee-training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility.

The Hazardous Materials Division (HMD) of the DEH conducts routine inspections at businesses required to submit Business Plans. The purpose of these inspections is to: 1) ensure compliance with existing laws and regulations concerning HMBP requirements; 2) identify existing safety hazards that could cause or contribute to an accidental spill or release; and 3) suggest preventative measures designed to minimize the risk of a spill or release of hazardous materials. After initial submission of an HMBP, the business must review and recertify the HMBP every year.

**Risk Management Plans**

Article 2 of Chapter 6.95 (H&SC Sections 25531- 25543.3) requires the owner or operator of a stationary source with more than a threshold quantity of a regulated substance to prepare a Risk Management Plan (RMP). The State statutes and regulations combine federal and State program requirements for the prevention of accidental releases of listed substances into the atmosphere. The incorporation of the federal and State requirements has been designated the California Accidental Release Prevention (CalARP) Program. CalARP requires that a RMP include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The RMP must be revised every five years or as necessary. The majority of facilities or businesses in San Diego County that have prepared RMPs are ammonia refrigeration facilities and water treatment and wastewater treatment plants that handle chlorine gas.

**Hazardous Materials Emergency Response**

The County of San Diego Department of Environmental Health, Hazardous Incident Response Team (DEH-HIRT) consists of ten California State Certified Hazardous Materials Specialists. The team was founded in 1981 by the Unified Disaster Council and is funded by a Joint Powers Agreement. This team services all unincorporated San Diego County areas, 18 municipalities, two military bases, and five Indian reservations. There are over 400 responses a year in the DEH-HIRT operational area. DEH-HIRT responds jointly with the San Diego Fire-Rescue Department Hazardous Incident Response Team to investigate and mitigate chemically related emergencies or complaints. Emergency response activities include mitigation, containment, control actions, hazard identification, and threat evaluation to the local population and the environment. DEH-HIRT is also responsible for handling all after normal business hours complaints for the DEH. Recent DEH-HIRT incidents include responses to the 2007 firestorm, responses to fires at factories that store and use hazardous materials, and responses to accidents involving vehicles transporting fuel, liquid oxygen, pesticides and other hazardous materials (DEH 2008a).

### *2.7.1.2 Airport Hazards*

The areas of concern when addressing airport hazards are over-flight safety, airspace protection, flight patterns and land use compatibility. Dealing with these concerns contributes to the overall safety of passengers, pilots and crews on flights, in addition to the safety of people

on the ground. Hazards associated with airports can have serious human safety and quality of life impacts. The following section describes the airport types and locations within the County and the programs these facilities implement to prevent hazards.

## Airport Transportation

There are eight County owned public airports located in San Diego County. Of these, six are located within the unincorporated area. These airports include Agua Caliente Airstrip, Borrego Valley Airport, Fallbrook Community Airpark, Jacumba Airport, Ocotillo Airstrip, and Ramona Airport. The Gillespie Field and McClellan-Palomar Airports are also owned by the County but are located within incorporated areas. Residents in the unincorporated area are also served by a number of airports located within incorporated cities, including San Diego International Airport (Lindbergh Field), Montgomery Field, Brown Field Municipal Airport, and Oceanside Municipal Airport. Aviation facilities provide a variety of aviation services to local residents, including civil aviation, government use, business flights, charter flights, flight schools, and helicopter operations. All County-owned airports are discussed below in terms of general characteristics and operation.

### Agua Caliente Airstrip

The Agua Caliente Airstrip serves residents of rural east San Diego County and visitors to Agua Caliente County Park. In addition, military helicopters from Naval Air Station North Island (Coronado) perform evening/nighttime flight training missions at this airstrip. The Agua Caliente Airstrip had a total of 650 annual operations in 2006. The facility is located in the Desert Subregion on County Highway S-2 north of I-8, approximately 95 miles east of downtown San Diego. Vehicle parking is available, but the facility is not served by transit. The facility consists of a single 2,500 foot cement treated runway surface and a cement treated tie-down area. The airstrip is within an easy walk to the Agua Caliente Hot Springs County Park and a small store adjacent to the Park.

### Borrego Valley Airport

The Borrego Valley Airport serves the general aviation needs of the community of Borrego Springs and visitors to the Anza-Borrego Desert State Park. The airport is located three miles east of Borrego Springs and 100 miles northeast of downtown San Diego. Several local resorts provide shuttle service from the airport. The facility consists of a single 5,011 foot paved lighted runway on 198 acres. Borrego Valley Airport serves single- and twin-engine piston aircraft, corporate jets, and helicopters. Associated facilities include a taxiway, aircraft parking, fueling areas, aircraft hangars, and a restaurant.

### Fallbrook Community Airpark

The Fallbrook Community Airpark is a general aviation airport and does not receive any commercial air service. As a community airport, the facility primarily serves recreational flying, training, and local emergencies. The Fallbrook Community Airpark is located 60 miles north of downtown San Diego on South Mission Road adjacent to the eastern boundary of the Fallbrook Naval Weapons Station. The Airpark is two miles south of the Fallbrook Town Center area and approximately five miles west of I-15 and four miles north of SR-76. Access to the site is served by private vehicles and there is no public transportation available. The airpark consists of 290 acres, of which 118 acres are used for aviation facilities. The remaining areas are subleased for

agricultural production and recreational activities. The 2,160-foot airpark runway is limited to accommodating small airplanes less than 12,500 pounds. Other airpark facilities include hangars, fueling areas, and tie-down areas for transient aircraft. Unlike all of the other airports located west of the mountains, the Fallbrook Airpark runway is oriented approximately north-south (instead of east-west), presenting a 12-mph crosswind from the west. All flight patterns must stay east of the runway to avoid restricted airspace to the west over the Fallbrook Naval Weapons Depot and USMC Camp Pendleton.

**Jacumba Airport**

Jacumba Airport serves the Mountain Empire communities of Jacumba, Boulevard, Tierra del Sol, and Live Oak Springs. The airport is mainly used as a glider facility by single-engine aircraft and sailplanes, with activity predominately occurring during weekends in non-summer months. The facility is located on Old Highway 80, one mile east of Jacumba, 75 miles east of San Diego and 100 yards north of the Mexican border. This 131-acre facility is unattended and has an unpaved (gravel) and unlighted 2,510 foot runway. Only 395 operations occurred at this airport in 2006.

**Ocotillo Airstrip**

The Ocotillo Airstrip is a low-activity facility, used primarily by small, single-engine, piston airplanes and military helicopters from Naval Air Station North Island performing evening/nighttime training missions. The airstrip is situated on a dry lakebed in rural East County, approximately 100 miles east of downtown San Diego. The facility is located directly north of SR-78 and the small town of Ocotillo Wells. The Anza Borrego Desert State Park surrounds the airstrip to the north, west, and east. The 353-acre facility consists of two packed-silt runways and a graded area for aircraft tie-down. Ultra-light aircraft use an adjacent graded airstrip, which is not under County supervision.

**Ramona Airport**

The Ramona Airport is the busiest airport located within the unincorporated County. Ramona is equipped with a single east-west runway capable of handling corporate jet aircraft. It also has a public practice helipad located south of the runway. During wildfire season, usually May through November, the California Department of Forestry and Fire Protection (CAL FIRE) and the U.S. Forest Service (USFS) operate one of the busiest aerial fire attack bases in the nation (air tankers and helicopters) at this airport. They stage much of their Southern California fire protection operations from this location. The airport is located approximately two miles west of the Ramona Town Center area, about 27 miles northeast of downtown San Diego in the Santa Maria Valley. The 342-acre facility has a single 5,000-foot paved runway. CAL FIRE and USFS helicopters have exclusive use of two helipads at this facility.

**Gillespie Field**

Gillespie Field, the oldest and largest County owned airport, is classified as a Regional-Business/Corporate airport in the California Aviation System Plan (CASP). This classification describes an airport located in an area with a large population base that serves a number of jurisdictions with a high concentration of business or corporate flying. The airport is located within the limits of the City of El Cajon, except for a small portion located in the City of Santee. The airport is easily accessible from I-8 and SR-67. A transit stop for the San Diego Trolley is

located less that one-half mile from the control tower, on the opposite side of the runway from the terminal building. This general aviation airport has two east/west runways, one north/south runway, multiple lighted taxiways, two concrete-paved helipads, and navigational landing aids. Gillespie Field also has many fixed-based operators (private non-county operators), which offer services such as aircraft rental, flight training, maintenance, charter flights, fuel sales, restaurants, hangars, and tie-down facilities. A general aviation terminal is available, but primarily used by County administrative personnel. In addition to the airport itself, Gillespie Field includes two business parks, which provide more than 2,000 jobs in the City of El Cajon and help to boost the local economy. In addition to general aviation operations, Gillespie Field is a center for aviation museums, the County of San Diego Sheriff's Aerial Support to Regional Enforcement Agencies (ASTREA) Helo Program, and the Civil Air Patrol's Search and Rescue Operations.

### McClellan-Palomar Airport

McClellan-Palomar Airport primarily serves general aviation users, but also serves corporate aircraft. One commercial airline serves this airport, with Los Angeles as the sole service destination. Historically, Las Vegas, Laughlin, and Phoenix have been other destinations served by commercial carriers from McClellan-Palomar Airport. There is also intense helicopter activity south of the runway. The airport is located within the limits of the City of Carlsbad. The site is three miles southeast of downtown Carlsbad at the corner of Palomar Airport Road and El Camino Real, approximately 30 miles north of downtown San Diego. The airport has both short and long term parking, with a shuttle bus running between the lots and terminals. The airport has a newly completed airport terminal which provides passenger airline services, rental cars, and restaurant services as well as US Custom Services.

## Airport Types

The types of airports within the unincorporated County include general aviation airports, military airports, and heliports. These airport types are discussed further below. Figure 2.7-3 identifies the location of the airport facilities located within the County.

### General Aviation Airports

A general aviation airport can be either public or private use. Anyone may use a public airport, but for a private airport, a user would need the owner's permission prior to use. General aviation public airports provide a variety of aviation services to local residents, including civil aviation, government use, business flights, charter flights, and flight schools. These uses also include helicopter operations. General aviation airports are known for their large diversification of aviation uses. Public use airports located within unincorporated San Diego County are listed in Table 2.7-4. Table 2.7-5 lists private airports located within the unincorporated County.

### Military Airports

There are four military airports in San Diego County. These include USMC Camp Pendleton, Naval Outlying Field Imperial Beach, MCAS Miramar, and Naval Air Station North Island. Only USMC Camp Pendleton is located fully within the unincorporated area of the County. A portion of the MCAS Miramar airport influence area is located within the unincorporated area near I-15 and Pomerado Road. The location of military airports within the County is shown in Figure 2.7-3.

### Heliports

Currently, the unincorporated County possesses heliport/helipad areas at Ramona Airport and Fallbrook Airpark. The Ramona heliport is on an elongated practice pad on the south side of the runway. The Fallbrook Airpark heliport is operated solely by the Sherriff's Department and Fire Rescue personnel, unlike the Ramona Airport which is operated by its own airport. It is located on the southeast portion of the airport.

### Public Airport Hazard Prevention

Airport Land Use Compatibility Plans (ALUCPs) are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. ALUCPs are based on a defined area around an airport known as the Airport Influence Area (AIA). Airport Influence Areas (AIAs) are established by factors including airport size, operations, configuration, as well as the safety, airspace protection, noise, and overflight impacts on the land surrounding an airport. It is important to note that ALUCPs do not affect existing land uses. Structure replacement and infill development are generally permitted under ALUCPs, in accordance with policies established by the San Diego County Regional Airport Authority (SDCRAA). In December 2006, the SDCRAA adopted new ALUCPs for six rural airports operated by the County (Agua Caliente, Borrego Valley, Fallbrook, Jacumba, Ocotillo, and Ramona).

Airport safety zones are established for all public airports as part of the ALUCP and land use restrictions within safety zones are established to protect people and property on the ground and in the air. Safety zones were created to address the following three safety concerns:

1. **Protecting people and property on the ground.** Land use restrictions are implemented that include limiting the intensity of use, residential uses, and sensitive uses such as occupants with mobility issues and hazardous materials;
2. **Minimizing injury to aircraft occupants.** Land use controls are implemented to preserve useful open land in the vicinity of the airport for an off-airport emergency landing; and
3. **Preventing creation of hazards to flight.** Restrictions on building heights and objects in the approach and take-off flight paths are implemented, along with the limitation of land uses that would interfere with aircraft communication and navigation equipment or attract wildlife that pose a hazard to aircraft (such as large birds).

Figure 2.7-4 presents an example of a runway that has been divided into six safety zones. Safety compatibility zones vary for each airport and a number of factors are considered when developing these zones. Table 2.7-6 describes the characteristics of the different Aircraft Safety Zones.

### Military Airports Hazard Prevention

Guidelines set forth by the Department of Defense (DOD) as part of its Air Installation Compatible Use Zone (AICUZ) Program address land use compatibility and safety policies for military airport runways. The AICUZ was initiated in the 1970s to recommend land uses that

may be compatible with noise levels, accident potential and flight clearance requirements associated with military airfield operations. DOD prepared individual AICUZ plans for all major military airports. The objective of this program is to encourage compatible uses of public and private lands in the vicinity of military airfields through the local communities' comprehensive planning process.

The Accident Potential Zone (APZ) is unique to military airfields, and is generally applied to all U.S. Navy and Marine Corps airfields within the U.S. Designation of APZs is a component of the AICUZ. These zones describe the probable impact area if an accident were to occur, based on historical accident data. Clear Zones, which are similar to a civilian airport RPZ, typically extend 3,000-feet beyond the end of the runway, measuring 1,500-feet wide at the runway and 2,284-feet wide at its outer edge. In addition, military airports designate two APZs (APZ-1 and APZ-2), which extend beyond the Clear Zone. Because military installations often lack land use authority over the extent of an AICUZ, it is the responsibility of the local jurisdiction to ensure incompatible uses are not permitted or, if allowed, that they are properly regulated in these zones.

**Private Airport Hazard Prevention**

Safety-related hazards at private and special-use airports affect less land because of lower activity levels compared to public-use airports. In addition, the general public has very limited access to or ability to utilize these facilities due to their ownership by private citizens or public agencies (such as the Bureau of Land Management or the U.S. Forest Service). Land use controls differ substantially between public airports and private airports. First, there are no AIA identified around these airports and land use restrictions are much less defined than with public airports. Second, Caltrans' Division of Aeronautics controls private and special-use airports through a permitting process, and is also responsible for regulating operational activities at these airports.

### *2.7.1.3 Wildland Fire Hazards*

A vast amount of the County's undeveloped lands support natural habitats such as grasslands, sage scrub, chaparral, and some coniferous forest. In the context of fire ecology, these areas are known as wildlands. Fire ecology research has shown that the natural fire regime for the shrublands and forests in San Diego County was one of frequent small fires and occasional large fires. Modern society has interrupted and fractured the natural fire process by initiating fire suppression policies, introducing invasive plant species that burn readily such as eucalyptus trees, and building houses within or adjacent to wildland areas (known as wildland-urban interface (WUI) areas) such as San Diego's backcountry. Although fires can occur anywhere in the County, fires that begin in wildland areas pose a serious threat to personal safety and structures due to rapid spread and the extreme heat that these fires often generate. Past wildfires have taken lives, destroyed homes and devastated hundreds of thousands of acres of the County's natural resources.

The following section discusses the fire hazard potential in the County, current wildland-urban interface conditions, and the history of wildland fires in the County. Fire Protection Districts, including non-serviced areas, County Service Areas and State Responsible Areas, are discussed in Section 2.13, Public Services.

## Fire Hazard Potential in the County of San Diego

CAL FIRE has mapped areas of significant fire hazards in the County through their Fire and Resource Assessment Program (FRAP). These maps place areas of the County into different Fire Hazard Severity Zones (FHSZ) based upon fuels, terrain, weather, and other relevant factors. Figure 2.7-5 identifies Federal Responsibility Areas (FRA), which are areas where the USFS is responsible for wildfire protection; State Responsibility Areas (SRA), which are areas where CAL FIRE is responsible for wildfire protection; and Local Responsibility Areas (LRA) where local fire protection agencies are responsible for wildfire protection. The majority of the unincorporated area of the County is SRA lands (see Figure 2.7-5).

The FHSZ are divided into three levels of fire hazard severity: Moderate, High and Very High. The majority of the County is in the High and Very High FHSZ, except for the Desert and eastern Mountain Empire Sub-regions which are in the Moderate FHRZ. There are also areas of Moderate FHSZ and un-zoned areas in the more densely populated communities around the County.

## Wildland Urban Interface

As identified above, a WUI is an area where development is located in close proximity to open space or lands with native vegetation and habitat that are prone to brush fires. The WUI creates an environment in which fire can move readily between structural and vegetation fuels. Once homes are built within (or adjacent to) natural habitat settings, it increases the complexity of fighting wildland fires because the goal of extinguishing the wildland fire is often superseded by protecting human life and private property.

The WUI is composed of communities that border wildlands or are intermixed with wildlands and where the minimum density exceeds one structure per 40 acres. WUI communities are created when the following conditions occur: 1) structures are built at densities greater than one unit per 40 acres; 2) the percentage of native vegetation is less than 50 percent; 3) the area is more than 75 percent vegetated; and 4) the area is within 1.5 miles of an area greater than a census block (1,325 acres). The 1.5 mile buffer distance was adopted according to the 2001 California Fire Alliance definition of vicinity, which is roughly the distance that pieces of burning wood can be carried from wildland fire to the roof of a structure (UW 2008).

Figure 2.7-6 shows areas in San Diego County mapped as WUI by CAL FIRE. Existing acres of WUI per community planning area are shown in Table 2.7-7.

## Wildland Fire History in San Diego County

San Diego County has a long history of wildland fires. As identified in an annual report produced by CAL FIRE called “Wildfire Activity Statistics,” San Diego County is consistently listed among the top five counties in the State for both number of acres burned and dollar value of fire damage. In San Diego County, fire season is typically defined from May through November, depending on variations in weather conditions. However, the threat of a wildland fire is always present and is influenced by weather conditions throughout the year.

The 2007 San Diego County firestorms were the second largest in County history, superseded only by the devastating firestorms of October 2003. The firestorms started on October 21, 2007 near the U.S./Mexico international border and burned throughout San Diego County until the

last fire was fully contained on November 9, 2007. At the height of the firestorms, there were seven separate fires burning in San Diego County. The fires resulted in seven civilian deaths, 23 civilian injuries, and 89 firefighter injuries. More than 6,200 fire personnel fought to control the wildland fires but the fires consumed approximately 369,000 acres, or about 13 percent of the County's total land mass. Additionally, the fires destroyed an estimated 1,600 homes, 800 outbuildings, 253 structures, 239 vehicles, and two commercial properties. The total projected damage costs of the 2007 San Diego County firestorms are estimated to exceed $1.5 billion (EG&G 2007).

Table 2.7-8 identifies the damage inflicted by major wildfires in San Diego County since 1996. Figure 2.7-7 shows areas that have suffered from wildland fires in the past.

### *2.7.1.4 Vectors*

A vector is any insect, arthropod, rodent or other animal of public health significance that can cause human discomfort, injury or is capable of harboring or transmitting the causative agents of human disease. Typical adverse effects related to vectors are two-fold. First, vectors can cause significant public health risks due to the transmission of disease to human and animal populations. Second, vectors can create a nuisance for the residents of the County. In the County of San Diego, the most significant vector populations include mosquitoes, rodents, flies, and fleas. Vector sources, populations, and transmittable diseases are discussed below.

**Vector Sources**

Vector sources occur where site conditions provide habitat suitable for breeding. The vector sources listed below focus specifically on those sources most commonly associated with proposed land development projects that could represent a potential hazard to public health.

**Standing Water**

Any source of standing water, including but not limited to ponds, reservoirs, natural and constructed wetlands, irrigation ponds, detention basins, percolation and infiltration basins, and other stormwater conveyance and treatment systems that hold standing water can be breeding grounds for mosquitoes and other vectors resulting in adverse public health effects related to disease transmission. Backyard residential sources of standing water are common vector breeding sources. These sources include unmaintained swimming pools and buckets, toys, and other common items that can hold even small amounts of water. Ponds, Stormwater BMPs, wetlands and reservoirs are another major source of vectors. The condition of the water body dictates its potential to generate vectors. For example, flowing and aerated water does not support mosquito breeding, while stagnant water does support mosquito breeding.

**Stormwater Management**

A standard requirement for new development is the incorporation of measures, or Best Management Practices (BMPs), to reduce stormwater flow rates, allow stormwater to infiltrate back into the ground, and to reduce constituent concentrations in runoff. Unfortunately, BMPs for managing runoff often provide aquatic habitats suitable for mosquitoes and other vector species as an unintended consequence of their implementation within residential neighborhoods. Examples of post-construction conditions that may increase the probability of

mosquito production in stormwater BMPs include clogging (e.g., effluent pipes, media filters, infiltration basins), establishment of invasive or exotic vegetation, groundwater fluctuations, non-stormwater runoff (e.g., increases in runoff frequency, residence time, and/or volume), scouring and erosion, structural damage (e.g., shifting or settling, roots), trash and sediment accumulation (e.g., formation of pools, clogging, redirected water flows), vandalism, and vegetation overgrowth. Other conditions favorable to mosquito production may become apparent as structures age. An often overlooked aspect of treatment BMP implementation is the long-term commitment of funds necessary for proper maintenance of structures. Routine and timely maintenance is critical for suppressing mosquito breeding as well as for meeting local water quality goals. If maintenance is neglected or inappropriate for a given site, even structures designed to be the least "mosquito friendly" may become significant breeding sites. Once these BMPs are degraded, they may be considered habitat and cannot easily be rehabilitated.

### Composting and Manure Management

The presence of large quantities of manure can significantly increase problems related to vectors, particularly from the breeding of flies. Equine operations, kennels, and animal agricultural uses such as poultry ranches or other animal breeding operations can increase vector populations, if not properly managed.

## Vector Populations and Diseases

### Mosquitoes

Almost all mosquitoes need standing water to complete their life cycle. For this reason, mosquitoes are found in areas of standing water including wetlands, irrigation ponds, detention basins, percolation and infiltration basins, and other stormwater conveyance systems. Some mosquito species are vectors of diseases. There are approximately 24 different species of mosquitoes that are found in San Diego County and of these there are at least four that are known to carry diseases that can be passed to humans.

The recent spread of West Nile Virus (WNV) has increased the health risk of mosquito contact and increased the importance of preventing mosquito breeding. Another virus of concern from mosquitoes includes arboviruses (arthropod-borne viruses), a large group of viruses that are spread mainly by bloodsucking insects. In the U.S., arboviruses are most commonly spread by mosquitoes. Arboviruses that have been found or may occur in San Diego County include Western Equine encephalitis, Saint Louis encephalitis, and most recently WNV. Birds are often the source of infection for mosquitoes, which can then spread the infection to horses, other animals, and people. Most people infected with arboviruses have few or no symptoms, but arboviruses can cause serious and potentially fatal inflammation of the brain (encephalitis) as well as other complications.

Emerging diseases are also a concern for San Diego County. Dengue, Chikungunya virus and Malaria are examples of emerging diseases that could come to us from foreign countries. Due to the ease of international travel, the threat of new diseases in our own backyard is very real. Up until a few years ago, West Nile Virus was an emerging disease as well.

**Rodents**

Rodents, such as mice, rats or squirrels, are very destructive pests that can spread disease, contaminate foods and food preparation areas, and cause costly structural damage. Diseases spread by rodents that can harm humans include plague and hantavirus.

Plague is a bacterial disease carried by rodents that is spread through the bite of an infected flea. Rodents, usually ground squirrels, can carry plague. Humans and their pets can also be infected with plague if bitten by infected fleas at campgrounds or rural areas, typically at the higher elevations. The County conducts plague surveillance, mostly at higher elevation localities. Surveillance and testing often yields one or more positive blood tests in ground squirrels each year. In response, plague-warning signs are posted at campgrounds to inform visitors of the appropriate precautions. Hantavirus is a potentially fatal rodent-borne disease. Both hemorrhagic and respiratory strains of hantavirus occur in wild rodents (deer and harvest mice) in San Diego County. Humans typically become infected with hantavirus by breathing air-borne particles of wild rodent droppings and urine contaminated with the virus. Symptoms of the virus include fever, headache, nausea, vomiting, and respiratory failure.

**Flies**

Flies are vectors of disease. When flies forage on feces and spoiled food they come into contact with pathogens and can spread them to other animals and humans. In two weeks, one female fly may lay more than 1,000 eggs in sources including, but not limited to, animal wastes, household garbage, and piled lawn clippings. The most common fly diseases are dysentery, salmonella, e-coli infection, and cholera.

**Fleas**

Fleas are usually brought into the home by dogs, cats or other furry pets. In order to live and reproduce, they feed off the blood of humans and animals, such as dogs and cats. Diseases spread by fleas include plague, tapeworm, and typhus.

### *2.7.1.5 Emergency Response and Evacuation Plans*

**Overview**

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, State and local level for all types of disasters, including human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management in order to avoid or minimize the effects of hazardous events. Local governments have the primary responsibility for preparedness and response activities.

To address disasters and emergency situations at the local level, the Unified Disaster Council (UDC) is the governing body of the Unified San Diego County Emergency Services Organization. The UDC is chaired by a member of the San Diego County Board of Supervisors and comprised of representatives from the 18 incorporated cities. The County of San Diego Office of Emergency Services (OES) serves as staff to the UDC.

Potential hazards or events that may trigger an emergency response action in the County include earthquakes, tsunamis, floods, wildland fires, landslides, droughts, hurricanes, tropical storms and freezes. Emergency response actions could also be triggered from a hazardous material incident, water or air pollution, a major transportation accident, water, gas, or energy shortage, an epidemic, a nuclear accident, or terrorism.

**Operational Area Emergency Plan**

In San Diego County, there is a comprehensive emergency plan known as the Operational Area Emergency Plan (OAEP). Stand-alone emergency plans for the Operational Area include:

- San Diego County Nuclear Power Plant Emergency Response Plan;
- San Diego County Operational Area Oil Spill Contingency Element of the Area Hazardous Materials Plan;
- San Diego County Operational Area Emergency Water Contingencies Plan;
- Unified San Diego County Emergency Services Organization Operational Area Energy Shortage Response Plan;
- Unified San Diego County Emergency Services Organization Recovery Plan;
- San Diego County Multi-Jurisdictional Hazard Mitigation Plan;
- San Diego Urban Area Tactical Interoperable Communications Plan; and
- San Diego County Draft Terrorist Incident Emergency Response Protocol.

In addition to the above plans, the OES maintains Dam Evacuation Plans for the Operational Area. Emergency plans for dam evacuation are necessary to plan for the loss of life, damage to property, displacement of people, and other ensuing hazards that can occur from dam failure. In the event of dam failure, damage control and disaster relief would be required and mass evacuation of the inundation areas would be essential to save lives. Dam inundation is further discussed in Section 2.8, Hydrology and Water Quality.

Dam evacuation plans contain information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions and event responses. In addition, the plans include inundation maps showing direction of flow; inundation area boundaries; hospitals, schools, multipurpose staging areas; command posts/sites; and mass care and shelter facilities/sites. Unique institutions, as defined by the OES, include the following types of facilities: hospitals, schools, skilled nursing facilities, retirement homes, mental health care facilities, care facilities with patients that have disabilities, adult and childcare facilities, jails/detention facilities, stadiums, arenas and amphitheaters.

**San Diego County Multi-Jurisdictional Hazard Mitigation Plan**

The Multi-Jurisdictional Hazard Mitigation Plan was developed with the participation of all jurisdictions in the County of San Diego including every incorporated city and the unincorporated County. The plan includes an overview of the risk assessment process, identifies hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives and actions for each jurisdiction in the County.

Hazards profiled in the plan include wildfire, structure fire, flood, coastal storms, erosion, tsunami, earthquakes, liquefaction, rain-induced landslide, dam failure, hazardous materials

incidents, nuclear materials release, and terrorism. The plan sets forth a variety of objectives and actions based on a set of broad goals including: 1) promoting disaster-resistant future development; 2) increased public understanding and support for effective hazard mitigation; 3) building support of local capacity and commitment to become less vulnerable to hazards; 4) enhancement of hazard mitigation coordination and communication with federal, State, local and tribal governments; and 5) reducing the possibility of damage and losses to existing assets, particularly people, critical facilities or infrastructure, and County owned facilities, due to dam failure, earthquake, coastal storm, erosion, tsunami, landslides, floods, structural fire/wildfire, and manmade hazards.

**Emergency Air Support**

Helicopters and small planes are used in a variety of emergency response actions such as search and rescue operations and retrieving water to extinguish wildfires. During an emergency response, aircraft tend to fly low to the ground thus increasing the potential hazards to aircraft from towers and other objects within airspace. CAL FIRE and the County of San Diego Sheriff's Department Aerial Support Detail, Air Support to Regional Enforcement Agencies (ASTREA) base carry out emergency response actions. CAL FIRE is the largest fire department in California and the third largest fire department in the U.S. Firefighters working for CAL FIRE are responsible for fulfilling their mission to provide comprehensive fire protection and other related emergency services, including protection of life and property. The San Diego County Sheriff's ASTREA operates aircraft throughout San Diego County on a daily basis. These aircraft are involved in law enforcement, search and rescue, and fire-related missions.

## 2.7.2 Regulatory Framework

### *2.7.2.1 Federal*

**Center for Disease Control; National Center for Infectious Diseases; Division of Vector-Borne Infectious Diseases**

The Division of Vector-Borne Infectious Diseases, within the Center for Disease Control, serves as a national and international reference center for vector-borne diseases. The mission of the Division is to: 1) develop and maintain effective surveillance for vector-borne viral and bacterial agents and their arthropod vectors; 2) conduct field and laboratory research and epidemic aid investigations; 3) define disease etiology, ecology, and pathogenesis in order to develop improved methods and strategies for disease diagnosis, surveillance, prevention and control; 4) provide diagnostic reference and epidemiologic consultation, on request, to State and local health departments, other components of CDC, other federal agencies, and national and international health organizations; and 5) provide intramural and extramural technical expertise and assistance in professional training activities.

**Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984**

Federal hazardous waste laws are generally promulgated under RCRA. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. DTSC is responsible for

implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency (CUPA) program, Cal EPA has in turn delegated enforcement authority to the County of San Diego for State law regulating hazardous waste producers or generators.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) of 1986**

Congress enacted CERCLA, commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. SARA amended the CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased State involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

**Chemical Accident Prevention Provisions**

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. These rules, which built upon existing industry codes and standards, require companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program.

**Emergency Planning Community Right-to-Know Act (EPCRA)**

The EPCRA, also known as SARA Title III, was enacted in October 1986. This law requires any infrastructure at the State and local levels to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. EPCRA Sections 301 through 312 are administered by EPA's Office of Emergency Management. EPA's Office of Information Analysis and Access implements the EPCRA Section 313 program. In California, SARA Title III is implemented through CalARP.

**Hazardous Materials Transportation Act**

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 CFR. State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. These agencies also govern permitting for hazardous materials transportation. Title 49 CFR reflects laws passed by Congress as of January 2, 2006.

**EPA Region 9, Preliminary Remediation Goals (PRGs)**

Region 9 is the Pacific Southwest Division of the EPA, which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and over 140 Tribal Nations. PRGs are tools for evaluating and cleaning up contaminated sites. PRGs for the Superfund/RCRA programs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered to be protective for humans (including sensitive groups) over a lifetime. However, PRGs are not always applicable to a particular site and do not address non-human health issues such as ecological impacts. Region 9's PRGs are viewed as agency guidelines, not legally enforceable standards.

**International Fire Code (IFC)**

The IFC, created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code (IBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every three years.

**Federal Aviation Administration (FAA) Functions**

The FAA has primary responsibility for the safety of civil aviation. The FAA's major functions regarding hazards include the following: 1) Developing and operating a common system of air traffic control and navigation for both civil and military aircraft; 2) Developing and implementing programs to control aircraft noise and other environmental effects of civil aviation; 3) Regulating U.S. commercial space transportation; and 4) Conducting reviews to determine that the safety of persons and property on the ground are protected.

**U.S. Department of Defense (DOD) Air Installations Compatible Use Zone (AICUZ) Program**

Safety compatibility criteria for military air bases are set forth through the AICUZ Program administered by the DOD. This Program applies to military air installations located within the U.S., its territories, trusts, and possessions. The AICUZ Program has the following four purposes: 1) to set forth DOD policy on achieving compatible use of public and private lands in the vicinity of military airfields; 2) to define height and land use compatibility restrictions; 3) to define procedures by which AICUZ may be defined; and 4) to provide policy on the extent of Government interest in real property within these zones that may be retained or acquired to protect the operational capability of active military airfields.

**The Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288), as amended, (42 U.S.C. Sections 5121-5206), and Related Authorities**

CFR Sections 206.31-206.48, provide the statutory framework for a Presidential declaration of an emergency or a declaration of a major disaster. Such declarations open the way for a wide range of federal resources to be made available to assist in dealing with an emergency or major

disaster. The Stafford Act structure for the declaration process reflects the fact that federal resources under this act supplement State and local resources for disaster relief and recovery. Except in the case of an emergency involving a subject area that is exclusively or preeminently in the federal purview, the Governor of an affected State, or Acting Governor if the Governor is not available, must request such a declaration by the President.

**Federal Response Plan**

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that: 1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of State and local governments overwhelmed by a major disaster or emergency; 2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and 3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency.

### *2.7.2.2 State*

**Government Code Section 65962.5 (a), Cortese List**

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal/EPA) to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

**California Health & Safety Code (H&SC), Hazardous Materials Release Response Plans and Inventory**

Two programs found in the California H&SC Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substance release. In San Diego County, these two programs are referred to as the HMBP Program and the CalARP program. DEH is responsible for the implementation of the HMBP program and the CalARP program in San Diego County. The HMBP and CalARP Program provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a HMBP or RMP is required pursuant to the regulation. Congress requires the EPA Region 9 to make RMP information available to the public through the EPA's Envirofacts Data Warehouse. The Envirofacts Data Warehouse is considered the single point of access to select EPA environmental data.

**California Health & Safety Code (H&SC), Vector Control**

Sections 116110 through 116112 of the California H&SC establishes mosquito abatement and vector control districts which are charged to protect Californians and their communities against the threats of vector borne diseases. These districts are responsible for developing and

conducting programs for the prevention and control of vectors; Surveillance of vectors and vector-borne diseases; Coordinating and conducting emergency vector control, as required; Training and certifying government agency vector control technicians; and Disseminating information to the public regarding protection from vectors and vector-borne diseases.

**Title 14 Division 1.5 of the California Code of Regulations**

CCR Title 14 Division 1.5 establishes the regulations for CAL FIRE and is applicable in all State Responsibility Areas (SRA)—areas where CAL FIRE is responsible for wildfire protection. Most of the unincorporated area of the County is SRA and any development in these areas must comply with these regulations. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, setback to property line, signage, and water supply.

**Title 22 of the California Code of Regulations & Hazardous Waste Control Law, Chapter 6.5**

The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. Cal/EPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the San Diego County DEH.

**Title 23 of the California Code of Regulations (CCR), Underground Storage Tank (UST) Act**

The UST monitoring and response program is required under Chapter 6.7 of the California Health and Safety Code and Title 23 of the CCR. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning USTs. The County DEH is the local administering agency for this program.

**Title 27 of the CCR, Solid Waste**

Title 27 of the CCR contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the State and which therefore must be discharged to waste management sites for treatment, storage, or disposal. The California Integrated Waste Management Board (CIWMB) and its certified Local Enforcement Agency (LEA) regulate the operation, inspection, permitting and oversight of maintenance activities at active and closed solid waste management sites and operations.

**California Health and Safety Code §25270 etc., Aboveground Petroleum Storage Act**

The Aboveground Petroleum Storage Act requires registration and spill prevention programs for AST that store petroleum. In some cases, ASTs for petroleum may be subject to groundwater monitoring programs that are implemented by the Regional Water Quality Control Boards and the SWRCB. The County DEH is the local administering agency for this program.

**California Human Health Screening Levels (CHHSLs)**

The CHHSLs or "Chisels" are concentrations of 54 hazardous chemicals in soil or soil gas that Cal/EPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of Cal/EPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and Cal/EPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

**SB 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program (CalARP)**

SB 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as "regulated substances" that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

**Emergency Response to Hazardous Materials Incidents**

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local government, and private agencies. The plan is administered by the California Emergency Management Agency (Cal EMA) and includes response to hazardous materials incidents. Cal EMA coordinates the response of other agencies, including Cal/EPA, California Highway Patrol, California Department of Fish and Game, Regional Water Quality Control Board, San Diego Air Pollution Control District, the City of San Diego Fire Department, and DEH-HIRT.

**California Fire Code (CFC)**

The CFC is Chapter 9 of Title 24 of the California Code of Regulations. It is created by the California Building Standards Commission and it is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code (CBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every three years.

**California Education Code (CEC)**

The CEC establishes the law for California public education. CEC requires that the DTSC be involved in the environmental review process for the proposed acquisition and/or construction of school properties that will use State funding. The CEC requires a Phase I Environmental Site Assessment be completed prior to acquiring a school site or engaging in a construction project. Depending on the outcome of the Phase 1 Environmental Site Assessment, a Preliminary Environmental Assessment and remediation may be required. The CEC also requires potential, future school sites that are proposed within two miles of an airport to be reviewed by Caltrans Division of Aeronautics. If Caltrans does not support the proposed site, no State or local funds can be used to acquire the site or construct the school.

**California State Aeronautics Act**

The State Aeronautics Act is implemented by Caltrans Division of Aeronautics. The purpose of this Act is to: 1) foster and promote safety in aeronautics; 2) ensure State provide laws and regulations relating to aeronautics are consistent with federal aeronautics laws and regulations; 3) assure that persons residing in the vicinity of airports are protected against intrusions by unreasonable levels of aircraft noise; and 4) develop informational programs to increase the understanding of current air transportation issues. Caltrans Division of Aeronautics issues permits for and annually inspects hospital heliports and public-use airports, makes recommendations regarding proposed school sites within two miles of an airport runway, and authorizes helicopter landing sites at/near schools.

**State Fire Regulations**

State fire regulations are set forth in Sections 13000 et seq. of the California H&SC, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all State-owned buildings, State-occupied buildings, and State institutions throughout California.

**California Emergency Services Act**

This Act was adopted to establish the State's roles and responsibilities during human-made or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the State. This Act is intended to protect health and safety by preserving the lives and property of the people of the State.

**California Natural Disaster Assistance Act (NDAA)**

The NDAA provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The NDAA is activated after the following occurs: 1) a local declaration of emergency; or 2) Cal EMA gives concurrence with the local declaration, or the Governor issues a Proclamation of a State Emergency. Once the NDAA is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

### *2.7.2.3 Local*

**San Diego County, Site Assessment and Mitigation (SAM) Program**

The County of San Diego DEH maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. San Diego County SAM Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC and the CCR. The SAM's Voluntary Assistance Program (VAP) also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

**San Diego County Board Policy I-132, Valley Center Mitigation Policy**

This policy was developed to ensure that the mitigation outlined in the Environmental Impact Report (EIR) for the Valley Center Septic Moratorium/Board of Supervisors Policy I-78 Amendment is enforced. One aspect of this Board Policy includes a requirement to investigate for the existence of contaminated soils or hazardous operations in the area covered by the EIR. Specifically, the policy states, "A hazardous materials assessment shall be conducted by a certified entity for any parcel proposed for development with the potential for the existence of contaminated soils or hazardous materials such as parcels historically utilized for agricultural operations. The purpose of the hazardous materials assessment would be to identify the presence/absence of hazardous materials and identify remediation measures that shall be implemented prior to development of the project site."

**County of San Diego Code of Regulatory Ordinances Sections 68.401-68.406, Combustible Vegetation and Other Flammable Materials Ordinance**

This ordinance addresses the accumulation of weeds, rubbish, and other materials on a private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. The ordinance constitutes the presence of such weeds, rubbish, and other materials as a public nuisance, which must be abated in accordance with the provisions of this section. This ordinance is enforced all County Service Areas (CSAs), and in the unincorporated areas of the County outside of a fire protection district. All fire protection districts have a combustible vegetation abatement program, and many fire protection districts have adopted and enforce the County's ordinance.

**County of San Diego Code of Regulatory Ordinances Sections 96.1.005 and 96.1.202, Removal of Fire Hazards**

The San Diego County Fire Authority, in partnership with CAL FIRE, the Bureau of Land Management, and the US Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from CAL FIRE are responsible for the initial inspection of properties to ensure an adequate defensible space has been created around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a reasonable timeframe to complete the task. If the violations still exist

upon re-inspection, the local fire inspector will forward a complaint to the County for further enforcement action.

**County of San Diego Consolidated Fire Code**

The County of San Diego, in collaboration with the local fire protection districts, created the first Consolidated Fire Code in 2001. The Consolidated Fire Code contains the County and fire protection districts amendments to the California Fire Code. The purpose of consolidation of the County and local fire districts adoptive ordinances is to promote consistency in the interpretation and enforcement of the Fire Code for the protection of the public health and safety, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. The Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the fire code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

**County DPLU Fire Prevention in Project Design Standards**

Following the October 2003 Wildfires, the County's DPLU incorporated a number of fire prevention strategies into the discretionary project review process for CEQA projects. One of the more significant changes is the requirement that the majority of discretionary permits (e.g., subdivision and use permits) in WUI areas prepare a Fire Protection Plan (FPP) for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions and fire history of the proposed project location. The plan addresses the following in terms of compliance with applicable codes and regulations including but not limited to: water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space and vegetation management.

## 2.7.3 Analysis of Project Impacts and Determination of Significance

### *2.7.3.1 Issue 1: Transport, Use, and Disposal of Hazardous Materials*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed General Plan Update would have a significant impact if it would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

A significant impact would occur if the project proposed businesses, operations, or facilities that handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC, and would not be able to comply with applicable hazardous substance regulations.

## Impact Analysis

Implementation of the proposed General Plan Update would result in land uses in the unincorporated County that typically involve the use, storage, disposal and transportation of hazardous materials. Chemicals that are considered hazardous materials are found everywhere. They purify drinking water, increase crop production, and simplify household chores. Hazards can occur during production, storage, transportation, use, or disposal. Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Many products containing hazardous chemicals are also used and stored in homes routinely. These products are also shipped daily on the nation's highways, railroads, waterways, and pipelines. Chemical manufacturers are one source of hazardous materials, but there are many others, including service stations, hospitals, and hazardous materials waste sites. Varying quantities of hazardous materials are manufactured, used, or stored at facilities in the unincorporated County, from major industrial plants to local dry cleaning establishments or gardening supply stores. Hazardous materials come in the form of explosives, corrosives, flammable and combustible substances, poisons, and radioactive materials (FEMA 2008).

Implementation of the proposed General Plan Update would result in increased development in the County, which would include land uses that involve the use, disposal or transport of hazardous materials. Additionally, the General Plan Update creates new land use designations, such as limited, medium and high impact industrial, which would allow businesses that handle large quantities of hazardous materials. Although hazardous materials can be found in all land use designations, those that are more likely to regularly use hazardous materials include limited impact industrial, medium impact industrial, high impact industrial, general commercial and rural commercial. The high impact industrial land use would be considered the proposed land use with the highest potential to transport, store and dispose of hazardous materials in quantities that could pose a significant risk to humans or the environment. New development occurring under the General Plan Update would result in an increase in land uses that use hazardous materials.

Additionally, the transportation of hazardous materials may increase as a direct result of increased hazardous materials usage within the County. As shown in Table 2.7-2, there are five registered active hazardous waste transporters that service the unincorporated County. There are no permitted TSDF facilities within the unincorporated County, therefore registered active hazardous waste transporters would transport hazardous waste generated in the County from its source to TSDF facilities in adjacent counties or incorporated cities. Hazardous waste sources may be located in any CPA or Subregion in San Diego County. The transportation of hazardous waste occurs mostly along major roadways in the County; however, because hazardous waste sources could occur anywhere in the County, any County roadway could be used to transport hazardous waste. Therefore, it is likely that the transportation of hazardous wastes would cross through or pass by all land use types in the County, including residential and other sensitive land uses. An increase in hazardous materials usage and transport could result in adverse environmental effects.

### Federal, State and Local Regulations and Existing Regulatory Processes

Numerous federal, State and local regulations exist that require strict adherence to specific guidelines regarding the use, transportation, and disposal of hazardous materials. Regulations that would be required of those transporting, using or disposing of hazardous materials include

RCRA, which provides the 'cradle to grave' regulation of hazardous wastes; CERCLA, which regulates closed and abandoned hazardous waste sites; the Hazardous Materials Transportation Act, which governs hazardous materials transportation on U.S. roadways; IFC, which creates procedures and mechanisms to ensure the safe handling and storage of hazardous materials; Title 22, which regulates the generation, transportation, treatment, storage and disposal of hazardous waste; CCR Title 27, which regulates the treatment, storage and disposal of solid wastes; and the County Consolidated Fire Code, which regulates hazardous materials and hazardous substance releases.

For development within the State of California, Government Code Section 65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the Health and Safety Code, Division 20, Chapter 6.95, Article 2, Sections 25500 through 25520.

The County of San Diego DEH-HMD is the Certified Unified Program Agency (CUPA) for San Diego County responsible for enforcing Chapter 6.95 of the Health and Safety Code. As the CUPA, the DEH-HMD is required to regulate hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans. The Hazardous Materials Business Plan is required to contain basic information on the location, type, quantity and health risks of hazardous materials stored, used, or disposed of on development sites. The plan also contains an emergency response plan which describes the procedures for mitigating a hazardous release, procedures and equipment for minimizing the potential damage of a hazardous materials release, and provisions for immediate notification of the HMD, the Office of Emergency Services, and other emergency response personnel such as the local Fire Agency having jurisdiction. Implementation of the emergency response plan facilitates rapid response in the event of an accidental spill or release, thereby reducing potential adverse impacts. Furthermore, the DEH-HMD is required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies within the Safety Element that would reduce the exposure of people and the environment to hazards involved with the routine transport, use or disposal of hazardous materials. Goal S-1 is to enhance public safety and the protection of public and private property within the unincorporated County. Policy S-1.1 supports this goal by minimizing the population exposed to hazards through the assignment of land use designations that reflect site specific constraints and hazards. Policy S-1.2 would locate future public facilities away from the County's most hazardous areas where feasible. Goal S-11 intends to limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources. Policy S-11.1 supports this goal by appropriately locating land uses that involve the storage, transfer, or processing of hazardous materials in quantities that could pose a significant risk to humans or the environment to minimize risk and comply with all applicable hazardous materials regulations. Policy S-11.2 would restrict industrial uses that store, process or transport significant amounts of hazardous material to areas designated as high impact industrial, which should not permit incompatible uses.

**Summary**

Implementation of the proposed General Plan Update would involve an increase in the transport, use, and disposal of hazardous materials. However, any future development and use of land uses, as designated under the proposed General Plan Update, would be required to comply with applicable federal, State and local regulations related to hazardous materials. Required compliance with these regulations would ensure impacts related to transport, use and disposal of hazardous materials would be less than significant.

### *2.7.3.2 Issue 2: Accidental Release of Hazardous Materials*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance for Hazardous Materials and Existing Contamination, the proposed General Plan Update would have a significant impact if it would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

**Impact Analysis**

As described in Section 2.7.1, Existing Conditions, hazardous materials are regularly used and transported in San Diego County. Although such activities involve strict regulations regarding monitoring and handling, accidental release of hazardous materials due to natural disasters, human error or misuse is possible. The designation of land uses such as limited impact industrial, medium impact industrial, high impact industrial, general commercial and rural commercial would result in the development of facilities that typically involve the use and storage of hazardous materials. Additionally, because growth would be accommodated in the unincorporated County, the demand for goods and services would also be expected to increase, such as industrial manufacturing or drycleaners, both of which involve the use of hazardous materials and have the potential for the accidental release of these materials. Therefore, the number of facilities that use and store hazardous materials, which may have the potential to result in a reasonably foreseeable upset or accident condition involving the release of hazardous materials into the environment, would increase under the proposed General Plan Update.

Implementation of the proposed General Plan Update would have the potential to result in adverse impacts to the public and environment from an unplanned accidental release of hazardous materials. Within the unincorporated County, there are multiple FUDS that have potential hazardous waste contamination problems such as disposal areas and LUFTS. Many of these FUDS contain UXOs, which pose high hazard risks in the event of an accidental release or detonation. Additionally, the public or environment could also be exposed to hazardous materials through improper construction activities which involve material removal such as asbestos, lead or USTs; during construction on properties with existing contamination; during transportation from facilities within the County to TSDF facilities outside the County; or in areas where established populations are located near facilities that use, store or dispose of hazardous materials.

### Federal, State and Local Regulations and Existing Regulatory Processes

Numerous federal, State, and local regulations exist that reduce the potential for humans or the environment to be affected by an accidental release of hazardous materials. These include, but are not limited to, the following: 1) Chemical Accident Prevention Provision, which requires companies that use certain hazardous materials to develop a Risk Management Program; 2) RCRA, which requires infrastructure at the State and local levels to plan for chemical emergencies; 3) Robert T. Stafford Disaster Relief and Emergency Assistance Act, which provides the statutory framework for a Presidential declaration of an emergency or major disaster; 4) California H&SC, which provides threshold quantities for regulated hazardous substances and the establishment of Hazardous Materials Release Response Plans; 5) CCR Title 23, which ensures that facilities meet regulatory requirements for underground storage tanks ; 6) Aboveground Petroleum Storage Act, which requires registration and spill prevention programs for ASTs; 7) CalARP, which governs the accidental airborne release of chemicals; 8) Emergency Response to Hazardous Materials Incidents; which provides coordination between federal, State, local government, and private agencies in the event of an emergency; 9) California Emergency Services Act, which establishes the State's role during natural or man-made emergencies; and 10) County Consolidated Fire Code, which regulates hazardous materials and hazardous substance releases. As mentioned above in Issue 1, the DEH-HMD is also required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances.

### Proposed General Plan Update Goals and Policies

The proposed General Plan Update includes goals and policies within the Land Use Element and Safety Element that would reduce the exposure of people and the environment to hazardous materials in the case of an accidental release. Goal LU-11 is to appropriately site and design commercial, office, and industrial development to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths. Policy LU-11.9 would locate transitions of medium intensity land uses or provide buffers between lower intensity uses, such as low-density residential districts, and higher intensity development, such as commercial or industrial uses. Buffering that would be required by this policy may be accomplished through increased setbacks or other techniques such as grade differentials, walls and landscaping. Policy LU-11.11 would require industrial land uses with outdoor activities or storage to provide a buffer from adjacent incompatible land uses, such as residential areas.

Goal S-1 is to enhance public safety and the protection of public and private property within the unincorporated County. Policy S-1.1 supports this goal by minimizing the population exposed to hazards through the assignment of land use designations that reflect site specific constraints and hazards. Policy S-1.2 would locate future public facilities away from the County's most hazardous areas where feasible. Goal S-11 intends to limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources. Policy S-11.1 supports this goal by appropriately locating land uses that involve the storage, transfer, or processing of hazardous materials in quantities that could pose a significant risk to humans or the environment to minimize risk and comply with all applicable hazardous materials regulations. Policy S-11.2 would restrict industrial uses that store, process or transport significant amounts of hazardous materials to areas designated as high impact industrial, to avoid conflicts with incompatible uses.

**Summary**

Implementation of the proposed General Plan Update would result in an increase in land uses that commonly store, use, and dispose of hazardous materials, such as limited impact industrial, medium impact industrial, and high impact industrial development. Additionally, existing industries and businesses that use hazardous materials may expand or increase to accommodate the projected growth under the General Plan Update. However, all future development, allowable under the proposed land use designations identified in the General Plan Update, would be required to comply with applicable federal, State and local regulations related to the transportation, use, storage, and disposal of hazardous materials. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release did occur. Therefore, required compliance with existing regulations would ensure impacts related to an accidental hazardous materials release would be less than significant.

### *2.7.3.3 Issue 3: Hazards to Schools*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance for Hazardous Materials and Existing Contamination, the proposed General Plan Update would have a significant impact if it would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

**Impact Analysis**

As discussed above, almost all land uses under the proposed General Plan Update have the potential to use, store, transport and dispose of hazardous materials. Even schools and day care operations may use and dispose of hazardous materials, such as cleaning products or laboratory chemicals, that potentially pose a risk to the public. Therefore, it is possible that implementation of the proposed General Plan Update would result in the use, storage, or transport of hazardous materials within one-quarter mile of a school.

Table 2.7-9 identifies the proposed land uses that would be one-quarter mile from schools under implementation of the General Plan Update. Although hazardous materials can be found in all land uses, those that are more likely to regularly use high quantities of hazardous materials include limited impact industrial, medium impact industrial, high impact industrial, general commercial, and rural commercial. The high impact industrial land use would be considered the proposed land use with the highest potential to transport, store and dispose of hazardous materials in significant quantities. As shown in Table 2.7-9, a total of approximately 1,060 acres of limited impact industrial, medium impact industrial, high impact industrial, general commercial, and rural commercial land uses would occur within the one-quarter mile of schools. Daycares may occur under many different land use categories in the County, which could similarly be within one-quarter mile of a use that handles hazardous materials. Therefore, under the proposed project, land uses that have a high potential for hazardous materials usage would potentially be located within one-quarter mile of schools or daycares.

The use, storage, or transportation of hazardous materials within one-quarter mile of a school or daycare could also increase under the proposed General Plan Update from the transportation of hazardous materials on roadways within the vicinity of schools. The expansion of existing commercial or industrial uses to accommodate population growth in the region may affect an existing or future school or day care, if it is located in the vicinity of a land use or development that currently uses, stores or disposes of hazardous materials.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Federal and State regulations exist that reduce hazardous emissions and hazardous materials handling within one-quarter mile of an existing or proposed school. These include, but are not limited to, CHHSLs, which evaluates sites with potential human health concerns, and the CEC, which requires the preparation of environmental assessments prior to school siting.

In the County, development projects are reviewed for potential hazardous emissions or substances under CEQA using the County's Guidelines for Determination of Significance. Section 15186 of the State CEQA Guidelines establishes requirements for school projects, as well as projects near schools, to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances are examined and disclosed in an environmental document. Section 15186 also states that hazardous materials that must be considered a risk are those which may impose a health or safety hazard to persons who would attend or would be employed at the school. Specifically, when a project located within one-quarter mile of a school involves the construction or alteration of a facility that might emit hazardous or acutely hazardous air emissions or handle acutely hazardous materials or a mixture containing acutely hazardous materials in a quantity equal to or greater than that specified in Section 25536(a) of the Health and Safety Code, the Lead Agency must, 1) consult with the affected school district regarding the potential impact of the project when circulating the environmental document, and 2) notify the affected school district in writing prior to approval and certification of the environmental document.

Moreover, all County permits that include storage, handling, transport, emission and disposal of hazardous substances will be in full compliance with local, State, and federal regulations. California Government Code Section 65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the Health and Safety Code, Division 20, Chapter 6.95, Article 2, Sections 25500 through 25520. As discussed in Issue 1 above, the County's DEH-HMD is required to regulate hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans. If proposed development projects will handle regulated substances subject to California Accidental Release Prevention (CalARP) Requirements within one-quarter mile of an existing or proposed school, then the County requires completion of an Off-Site Consequence Analysis to determine whether, in the event of an accidental release, a potentially significant hazard could occur.

When school districts propose new school projects, they must undergo similar reviews and regulatory processes prior to being sited near uses that would potentially handle or emit hazardous materials.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes several goals and policies within the Land Use Element and Safety Element that would reduce the exposure of school and day care populations to hazardous materials. Goal S-11 is to limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources. Policy S-11.3 supports this goal by locating land uses that use hazardous materials away from sensitive uses such as schools, hospitals, day care centers and residential neighborhoods to ensure that they are protected. This policy would avoid locating sensitive uses near established hazardous materials users or high impact industrial areas where incompatibilities would result. The intent of Goal LU-11 is to appropriately site and design commercial, office, and industrial development to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths. Policy LU-11.10 supports this goal by protecting designated medium and high impact industrial areas from encroachment by incompatible land uses, such as residences, schools, or other sensitive uses. The intent of this policy is to retain the ability to use industrially designated locations by reducing future development conflicts.

**Summary**

The General Plan Update proposes land uses that have a high potential for hazardous materials usage to be located within one-quarter mile of an existing or proposed school or daycare. However, compliance with federal and State regulations pertaining to hazardous wastes, including the CEQA Guidelines specified above, would ensure that risks associated with hazardous emissions and schools would remain below a level of significance.

### *2.7.3.4 Issue 4: Existing Hazardous Materials Sites*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance for Hazardous Materials and Existing Contamination, the proposed General Plan Update would have a significant impact if it proposed development to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

A significant impact could also occur if the project includes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill; if development is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); if the project is located on or within 1,000 feet of a FUDS; if human or environmental exposure to soils or groundwater in exceedance of EPA Region 9 PRGs, Cal/EPA CHHSLs, or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants would occur; or if the project would involve the demolition of commercial, industrial or residential structures that contain ACM, LBP and/or other hazardous materials.

## Impact Analysis

Typical adverse effects related to existing contamination from hazardous substances relate to the potential for site conditions or site contamination to result in adverse human or environmental effects. Potential pathways of exposure to contaminants from existing contamination includes direct ingestion of contaminated soils and/or ground water, inhalation of volatiles and fugitive dusts, potential explosion hazards associated with landfill gas, ingestion of contaminated ground water caused by migration of chemicals through soil to an underlying potable aquifer, dermal absorption, ingestion of homegrown produce that has been contaminated via plant uptake, and migration of volatiles into basements and slabs. Potential exposure to contaminants could also occur to construction workers during site development and to the residents or workers that occupy the ultimate land use approved on the site.

Some land uses designated under the proposed General Plan Update would be more likely to disturb existing hazardous material sites and increase potential pathways of exposure than others. For example, residential designations would have the potential to introduce human populations into areas that could have a history of contamination from historic burnsites, nearby landfills, historic agricultural use, or other existing hazards. Construction activities could uncover buried underground storage tanks or other buried hazards. Areas designated open space recreation or open space conservation land use designations, which generally do not allow land uses that involve excavation, grading, or the permanent construction of dwelling units, would be unlikely to disturb existing hazardous material sites, and would not result in hazardous materials exposure to the public.

As discussed in Section 2.7.1, Existing Conditions, the unincorporated County of San Diego has 22 sites listed on the EnviroStor database, 19 sites listed as open on the Geotracker database, approximately 42 sites listed on the Active CDO and/or CAO list, and 95 sites listed on the SWIS database. In addition to the sites listed on these databases, many areas within the County also contain potential hazards from former activities involving burn dump sites, landfills, FUDS, agriculture, or petroleum contamination. A summary of the potential impacts associated with each of these hazardous materials categories is provided below.

### Sites Listed Pursuant to Government Code Section 65962.5

Implementation of the proposed General Plan Update would likely result in future development on or within one-quarter mile from a site identified in one of the regulatory databases, compiled pursuant to Government Code Section 65962.5. The DTSC EnviroStor Database has approximately 22 sites located in the unincorporated communities or areas of Ramona, Borrego Springs, Fallbrook, Campo, Jacumba, Cuyamaca, Tecate, Tierra Del Sol, Rancho Santa Fe, Warner Springs, Pine Valley, Mount Laguna, and Lakeside (EnviroStor Database 2008). The GeoTracker Database lists over 8,000 sites within the entire County of San Diego, of which 19 are listed active and located in the unincorporated communities of Camp Pendleton, Descanso, Ramona, Campo, Mount Laguna, and Lakeside. The list of active CDO and CAO from the SWRCB contains approximately 42 sites located in the unincorporated communities or areas of Borrego Springs, Camp Pendleton, Lakeside, Ramona, Rancho Santa Fe, and Valley Center (CAEPA 2008). The SWIS database lists 95 sites within the County of San Diego, seven of which are active landfills identified on Table 2.7-1. Additionally, Table 2.7-10 identifies sensitive receptors within one-quarter mile of sites listed on the Cortese list. There are 2,113 residential parcels, 10 schools, one long-term resident care facility, and five licensed day care facilities located within one-quarter mile of an existing hazardous materials site in the County. Due to the

large number of sites located throughout the County that have existing contamination, implementation of the General Plan Update would have the potential to result in a potentially significant hazard to the public or environment by locating projects on or near sites listed pursuant to Government Code Section 65962.5.

**Burn Dump Sites**

Implementation of the proposed General Plan Update may result in land uses that would be located on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash). As shown in Figure 2.7-2, County burnsites are located in the unincorporated communities or areas of Fallbrook, Ramona, Lakeside, Alpine, Jamul, Campo, Descanso, Julian, Lake Henshaw, Palomar Mountain, Oak Grove/Sunshine Summit, Warner Springs Ranch, Mount Laguna, Pine Valley, and Jacumba. Many of these communities would experience development under the General Plan Update. Therefore, implementation of the proposed General Plan Update could have the potential to create a hazard to the public or the environment through exposure of new development to burn dump sites.

**Active, Abandoned, or Closed Landfills**

Implementation of the proposed General Plan Update would have the potential to allow structures proposed for human occupancy and/or significant linear excavation to occur within 1,000 feet of an active, abandoned, or closed landfill. As shown on Figure 2.7-2, active landfills within the unincorporated County are located in the communities or areas of Ramona, Las Pulgas, San Onofre, and Borrego Springs. Closed landfills are located in the unincorporated communities of Pendleton/De Luz, Bonsall, Valley Center, and Valle De Oro. Implementation of the proposed General Plan Update may result in land uses that expose the public or environment to hazards associated with active, abandoned or closed landfills.

**FUDS**

Implementation of the proposed General Plan Update would have the potential to result in development and land uses that would be located on or within 1,000 feet of a FUDS. As shown on Figure 2.7-1, FUDS are located in the unincorporated communities of Bonsall, Otay, Campo/Lake Moreno, Lakeside, and Ramona. FUDS have potential hazardous waste contamination problems such as disposal areas and LUFTs. Additionally, some FUDS have UXOs that pose a potentially significant risk to the public if disturbed. Therefore, implementation of the proposed General Plan Update would have the potential to result in hazards to the public or the environment from exposure to FUDS.

**Historic Agriculture**

Implementation of the proposed General Plan Update could result in land uses and development on or near areas that have elevated pesticide levels due to past agricultural operations. Agriculture, historically and currently, is a strong component to the economy of San Diego County. Figure 2.2-2, in Section 2.2 Agriculture, identifies the numerous agricultural resources that exist throughout the County, some of which may have elevated levels of agricultural pesticides. Implementation of the proposed General Plan would create land uses on sites previously used for agricultural operations, which could expose humans to soils or groundwater previously contaminated with agricultural pesticides.

### Petroleum Contamination

Implementation of the proposed General Plan Update could result in land uses and development on areas with elevated concentrations of petroleum in soil, surface or groundwater. Accidents, spills, leaks, and past improper disposal of petroleum products have resulted in multiple sites across the unincorporated County that have contaminated land, groundwater and surface water. For example, the GeoTracker database, which identifies LUFT sites, has over 8,000 sites listed in both incorporated and unincorporated San Diego County. Many of these sites do not pose a hazard to the County because they lie outside of the County's jurisdiction, are classified as closed, or pertain to other environmental issues. The majority of LUFT sites identified in the GeoTracker Database are listed as completed/case closed, indicating contamination has been remediated. However, LUFT sites classified as open, are located within the unincorporated communities of Camp Pendleton, Descanso, Ramona, Campo, Mount Laguna, and Lakeside. The County SAM listing also identifies multiple LUFT sites in the communities of Borrego Springs, Spring Valley, and Valle de Oro. These contaminated sites have the potential to threaten human health as well as the environment by contaminating soil, groundwater and drinking water supplies. Implementation of the General Plan Update would allow development to occur on areas within the County that have been exposed to petroleum contamination, thereby potentially creating a hazard to the public or the environment.

### Federal, State and Local Regulations and Existing Regulatory Processes

Federal and State regulations exist that prevent or reduce hazards to the public and environment from existing hazardous materials sites. These include, but are not limited to, the following: 1) CERCLA, which regulates closed and abandoned hazardous waste sites; 2) PRGs, which establishes tools for evaluating and cleaning up contaminated sites; 3) Cortese List, which provides information about the location of hazardous materials release sites; and 4) CHHSLs, which evaluates sites with potential human health concerns.

The San Diego County Site Assessment and Mitigation (SAM) Program, within the Land and Water Quality Division of the DEH, maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. If a project is submitted to the County for Discretionary Review and is located on a site found on the SAM list, the project's status must be determined and any ongoing remediation requirements coordinated with the DEH SAM project manager.

For ministerial reviews, such as building permits, sites are screened during Building Permit Per-submittal Review. If the property is on any of the lists as a potential hazardous materials site, then DEH review and approval is required.

### Proposed General Plan Update Goals and Policies

The General Plan Update includes two goals and several policies within the Safety Element that would reduce the potential for the public and the environment to be exposed to hazardous materials from existing site contamination. The intent of Goal S-1 is to enhance public safety and the protection of public and private property within the unincorporated County. Policy S-1.1 would minimize the population exposed to hazards by assigning land use designations that reflect site specific constraints and hazards. Policy S-1.2 would locate future public facilities away from the County's most hazardous areas where feasible. The intent of Goal S-11 is to

limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources. Policy S-11.4 would require areas of known or suspected contamination to be assessed prior to reuse and to be reused in a manner that is compatible with the nature of the contamination and subsequent remediation efforts. Policy S-11.5 would require new development adjacent to existing agricultural operations in semi-rural and rural lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used.

**Summary**

Under implementation of the proposed General Plan Update, land uses and development may be located on a site such as those pursuant to Government Code 65962.5, burn dump sites, active, abandoned or closed landfills, FUDS, areas with historic or current agriculture or areas with petroleum contamination. However, compliance with applicable existing regulations and processes would ensure that the General Plan Update would not result in a significant hazard to the public or the environment from future development on existing hazardous materials sites. Therefore, the proposed General Plan Update would have a less than significant impact associated with existing hazardous materials sites.

### *2.7.3.5 Issue 5: Public Airports*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Airport Hazards, the proposed General Plan Update would have a significant impact if it would locate development within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area.

**Impact Analysis**

Implementation of the proposed General Plan Update would accommodate increased population within the unincorporated County, thereby increasing the demand for airport travel and operations. An increase in airport travel would increase the potential for safety risks associated with airports to occur. Airport hazards involve uncertain events that may occur with occasional aircraft operations. This is quite different than predictable events (such as noise) that occur with every aircraft operation. On the ground, aircraft hazards are generally produced by aircraft mishaps, either incident or accidents, which are associated with the operation of an aircraft. Ground-related incidents or accidents generally occur during take-off or landing. The most common type of take-off or landing accident is a runway incursion. A runway incursion is defined as an occurrence along the airport runway that creates a collision hazard or prevents an aircraft from taking off or landing. It can involve an aircraft, vehicle, person, or any other object that impacts an aircrafts' ability to land or take-off. Hazards in the air jeopardize the safety of an airborne aircraft and expose passengers, pilots, and crews to danger. Examples of hazards that interfere with air safety include tall structures, birds, glare-producing objects, or radio waves from communication centers. Essentially, there are two types of aviation-related safety concerns that affect land use near airports. The first is minimizing the severity of an aircraft accident by limiting the number of people and amount of property within airport hazard zones.

The second is minimizing hazards in the air through restrictions on building heights and on uses that produce electronic or visual impairments to navigation or attract large numbers of birds.

Within the unincorporated County of San Diego, there are six public airports, including Fallbrook Community Airpark, Borrego Valley Airport, Ocotillo Airport, Ramona Airport, Agua Caliente Airstrip, and Jacumba Airport. Figure 2.7-3 identifies the location of airports throughout the County. Each of these airports have adopted ALUCPs that guide nearby property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. Brown Field Municipal Airport, located within and operated by the City of San Diego, also has an existing ALUCP whose compatibility requirements affect lands within County jurisdiction. These ALUCPs are largely based on requirements provided by the California Airport Land Use Planning Handbook, which was developed using FAA regulations that establish compatible land use and density criteria from recorded crash patterns. However, each ALUCP is unique to the airport it serves.

Some land uses designated under the proposed General Plan Update would be more likely to result in public airport safety hazards than others. For example, areas designated as residential and commercial would be likely to continually contain high concentrations of persons. If land uses containing high concentrations of persons are located in areas adjacent to public airport operations, public airport hazards would be considered potentially significant. In contrast, open space recreation or open space conservation land use designations would generally not accommodate high density populations. Therefore, impacts from public airport hazards in areas with open space land use designations would generally not occur. The majority of land uses proposed under the General Plan Update within the vicinity of public airports are rural lands, open space, semi-rural lands, and federal or State-owned park land.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Federal and State regulations exist that prevent hazards to the public and environment near public airports. These include FAA regulations, which establish safety standards for civil aviation, and the State Aeronautics Act, which establishes air safety standards. In addition, the County requires that development projects near public airports comply with any applicable ALUCP.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes three goals and multiple policies within the Land Use Element, Safety Element and Mobility Element that would reduce safety hazards associated with public airports.

Goal LU-4 is coordination with the plans and activities of other agencies that relate to issues such as land use, community character, transportation, energy, other infrastructure, public safety, and resource conservation and management in the unincorporated County and the region. Policy LU-4.7 would coordinate with the Airport Land Use Commission (ALUC) and support review of Airport Land Use Compatibility Plans for development within Airport Influence Areas.

Goal S-15 requires development within safety (airport hazard) zones to minimize the risk of personal injury to both flight occupants and people and property damage on the ground as well as protect airport operations from incompatible land uses. Policy S-15.1 would require land

uses surrounding airports to be compatible with the operation of each airport. Policy S-15.2 would require operational plans for new public/private airports and heliports, as well as future operational changes to existing airports, to be compatible with existing and planned land uses that surround the airport facility. Policy S-15.3 would restrict potentially hazardous obstructions or other hazards to flight located within airport approach and departure areas and discourages uses that may impact airport operations or do not meet federal or State aviation standards. This policy includes specific concerns such as heights of structures near airports and activities which can cause electronic or visual impairments to air navigation or which attract large numbers of birds (such as landfills, wetlands, water features, and cereal grain fields).

Goal M-7 is to maintain viable and accessible airport facilities whose continuing operations effectively serve the evolving needs of the region while minimizing any adverse impacts of airport operations. Policy M-7.1 would adequately consider and minimize impacts to environmental resources and surrounding communities when operating and, when necessary to meet changing needs, expanding public aviation facilities.

**Summary**

Generally, land uses proposed under the General Plan Update within the vicinity of public airports include rural lands, open space, semi-rural lands, and federal or State land. However, under implementation of the General Plan Update, some public airports, such as Fallbrook Community Airpark, may have adjacent land uses such as village residential, which would maintain higher density populations. Although it would be required to comply with the ALUCP, development within the Airport Influence Area (AIA) of a public airport may increase the risk of people living or working in these areas to hazards associated with airport operations. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with public airport hazards, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with public airports and specific implementation programs are identified as mitigation.

### *2.7.3.6 Issue 6: Private Airports*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the San Diego County Guidelines for Determining Significance, Airport Hazards, the proposed General Plan Update would have a significant impact if it would locate development within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area.

**Impact Analysis**

Military Airports, included under this discussion of private airports, have APZ safety guidelines set forth by the Department of Defense. There are four military airports in San Diego County. These include USMC Camp Pendleton, Naval Outlying Field Imperial Beach, MCAS Miramar, and Naval Air Station North Island. Only USMC Camp Pendleton is located completely within the unincorporated area of the County, although a portion of the MCAS Miramar influence area is located within the unincorporated County area near I-15 and Pomerado Road. Under

implementation of the General Plan Update, land uses in the vicinity of the USMC Camp Pendleton military airport would be designated as Military Installations and the DOD would continue to be the regulatory agency charged with ensuring ground and air safety within the vicinity of the airport. Additionally, the MCAS Miramar APZ does not cover areas in the unincorporated County. Therefore, impacts to Military Airports from implementation of the General Plan would be less than significant.

Implementation of the proposed General Plan Update would accommodate an increase the population within the unincorporated County, thereby increasing the demand for private airport travel and operations. An increase in private airport operations would increase the potential for safety risks associated with private airports to occur. Private and special-use airports are controlled by Caltrans Division of Aeronautics through a permitting process and the regulation of operational activities at these airports. Within the unincorporated County, private airports are located in the communities of Alpine, Bonsall, Central Mountain, Desert, Jamul/Dulzura, Julian, Mountain Empire, North County Metro, North Mountain, Otay, Pala/Pauma, Pendleton/De Luz, Ramona, and Valley Center. Generally, under the proposed General Plan Update, land use designations within two miles of a private airport would include rural lands and semi-rural lands. However, a few private airports, such as Blackington Airpark in Valley Center, would have adjacent land use designations such as village residential, which would maintain higher density populations.

Airport hazards involve uncertain events that may occur with occasional aircraft operations. This is quite different than predictable events (such as noise) that occur with every aircraft operation. On the ground, aircraft hazards are generally produced by aircraft mishaps, either incident or accidents, which are associated with the operation of an aircraft. Ground-related incidents or accidents generally occur during take-off or landing. The most common type of take-off or landing accident is a runway incursion. A runway incursion is defined as an occurrence along the airport runway that creates a collision hazard or prevents an aircraft from taking off or landing. It can involve an aircraft, vehicle, person, or any other object that impacts an aircrafts' ability to land or take-off. Hazards in the air jeopardize the safety of an airborne aircraft and expose passengers, pilots, and crews to danger. Examples of hazards that interfere with air safety include tall structures, birds, glare-producing objects, or radio waves from communication centers. Essentially, there are two types of aviation-related safety concerns that affect land uses near airports. The first is minimizing the severity of an aircraft accident by limiting the number of people and amount of property within airport hazard zones. The second is minimizing hazards in the air through restrictions on building heights and on uses that produce electronic or visual impairments to navigation or attract large numbers of birds.

Some land uses designated under the proposed General Plan Update would be more likely to result in private airport safety hazards than others. For example, areas designated as residential and commercial would be likely to relatively contain higher concentrations of persons. If land uses containing high concentrations of persons are located in areas adjacent to private airport operations, private airport hazards would be considered potentially significant. In contrast, open space recreation or open space conservation land use designations would generally not accommodate high density populations. Therefore, impacts from private airport hazards in areas with open space land use designations would generally not occur.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Federal and State regulations exist that help to prevent hazards to the public and the environment from land uses within two miles of private airstrips. These include, but are not limited to, the following: 1) FAA regulations, which establish safety standards for civil aviation; 2) DOD AICUZ, which establish safety compatibility criteria for military air bases; and 3) State Aeronautics Act, which establishes air safety standards.

Projects proposing private airstrips fall under the category of Major Impact Utilities and Services and require a MUP in all zones except where the use is entirely prohibited. As part of the discretionary review process for these MUP applications, potential impacts to people residing or working in the area are carefully evaluated during environmental reviews and hearing processes.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes one goal and several policies within the Safety Element that would reduce safety hazards associated with private airports within the vicinity of higher density populations. Goal S-15 would require development within safety (airport hazard) zones to minimize the risk of personal injury to both flight occupants and people and property damage on the ground as well as protect airport operations from incompatible land uses. Policy S-15.4 would locate private airstrips and heliports outside of safety zones and flight paths for existing airports and in a manner to avoid impacting public roadways and facilities compatible with surrounding established and planned land uses.

**Summary**

Implementation of the proposed General Plan Update may result in land use designations that allow development within two miles of a private airport. Therefore, the proposed project may result in safety hazards for people residing or working in the project area. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with private airport hazards, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with private airports and specific implementation programs are identified as mitigation.

### *2.7.3.7 Issue 7: Emergency Response and Evacuation Plans*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Emergency Response Plans, the proposed General Plan Update would have a significant impact if it would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

## Impact Analysis

Interference with an adopted emergency response or evacuation plan would result in an adverse physical effect to people or the environment by potentially increasing the loss of life and property in the event of a disaster. Development that proposes large concentrations of people or special needs individuals, such as stadiums or hospitals, in an area with increased hazards, such as a dam inundation area, could cause adverse effects related to the implementation of the Multi-Jurisdictional Hazard Mitigation Plan or a Dam Evacuation Plan (additional information on dam inundation and flooding is provided in Section 2.8, Hydrology and Water Quality). Failure to provide reasonable access for emergency equipment and evacuation of civilians can also result in the major loss of life, property, and natural resources. Additionally, certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response.

The San Diego County Multi-Jurisdictional Hazard Mitigation Plan evaluates risks associated with coastal storms, erosion, and tsunami, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildfire fires and manmade hazards and provides goals, objectives and actions to reduce impacts from these hazards. The Dam Evacuation Plan contains information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions, and event responses. The goal of the Dam Evacuation Plan is to prevent the loss of life, damage to property, displacement of people, and other ensuing hazards in the event of a dam failure. Implementation of the proposed General Plan Update does not propose to change the plans or policies of the Multi-Jurisdictional Hazard Mitigation Plan, Dam Evacuation Plan or any other emergency plan, although it is possible that land uses and development implemented under the General Plan Update may require the updating of these emergency plans. Construction activities associated with development occurring under the General Plan Update would have the potential to interfere with emergency plans and procedures if authorities are not properly notified, or multiple projects are constructed during the same time and multiple roadways used for emergency routes are concurrently blocked. Additionally, the proposed General Plan Update would reallocate 80 percent of the projected population growth within the unincorporated County to the western portion of the County, generally in areas where infrastructure currently exists. There is a potential that the existing emergency response and evacuation plans that serve the County in the event of an emergency do not account for this relocation of growth. This could cause an inadvertent impairment to the existing emergency response plans and policies, which could increase the risk to loss of life and property in the event of an emergency. Therefore, implementation of the General Plan Update has the potential to create a significant impact to emergency response and evacuation plans, and would result in a potentially significant impact.

### Federal, State and Local Regulations and Existing Regulatory Processes

The County of San Diego reviews development proposals for consistency with the following plans/regulations: 1) the Statewide Standardized Emergency Management System; 2) the San Diego County Nuclear Power Station Emergency Response Plan; 3) the Oil Spill Contingency Element; 4) the Emergency Water Contingencies Annex and Energy Shortage Response Plan; 5) and the Dam Evacuation Plan.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes several goals and policies within the Safety Element, Mobility Element, and Land Use Element that would reduce the potential for proposed land uses and development to interfere with adopted emergency response or evacuation plans. In the Safety Element, Goal S-1 aims to enhance public safety and the protection of public and private property. Policy S-1.3 supports efforts and programs that address reducing the risk of natural and man-made hazards and the appropriate disaster response. Goal S-3 aims to minimize injury, loss of life, and damage to property produced by structural or wildland fire hazards.

In the Mobility Element, Goal M-1 would create a safe and efficient public and private road network that balances regional travel needs with the travel requirements and preferences of local communities. Policy M-1.2 would provide an interconnected public road network with multiple connections that improve efficiency by incorporating shorter routes between trip origin and destination, disperse traffic, reduce traffic congestion in specific areas, and provide both primary and secondary access/egress routes that support emergency services during fire and other emergencies. Goal M-3 would create new or expanded transportation facilities that are phased with and equitably funded by the new development that necessitates their construction. Policy M-3.3 would require new development to provide multiple access/egress routes

Goal M-4 would design roads to be safe for all users and compatible with their context. Policy M-4.4 would design and construct public and private roads to allow for necessary access for fire apparatus and emergency vehicles accommodating outgoing vehicles from evacuating residents.

**Summary**

Implementation of the General Plan Update would increase land uses and development in areas that may not have accounted for this growth in their existing Emergency Response and Evacuation plans. Therefore, the proposed project would have the potential to impair these Emergency Response and Evacuation Plans. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with emergency response and evacuation plans, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with emergency response and evacuation plans and specific implementation programs are identified as mitigation.

## *2.7.3.8 Issue 8: Wildland Fires*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Wildland Fire and Fire Protection, the proposed General Plan Update would have a significant impact if it would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

## Impact Analysis

Generally, two types of adverse effects are associated with wildland fires: the immediate effects that occur during a wildland fire event and the effects that occur in the aftermath. In addition to the potential loss of life and property, wildfires may result in the loss or permanent change of natural resources. Although wildfires are considered a natural process necessary to the functioning of many ecosystems, a wildfire's aftermath typically leaves land scorched and exposed. Until the land rehabilitates, the exposed soils may contribute to adverse environmental impacts including air and water pollution and unstable soils conditions such as mudslides and erosion. The end result of uncontrolled wildfire also includes debris from burned homes, some of which can be highly toxic, and can adversely impact the environment by polluting local waterways such as streams and rivers. Although natural conditions make wildfires common in San Diego County, locating high density land uses adjacent to or within a WUI can result in increased fire related risk to people and structures.

The vast majority of unincorporated San Diego County is ranked through FRAP as having High or Very High fire hazard severity. Figure 2.7-5 depicts these areas for San Diego County. Additionally, approximately 575,434 acres of the unincorporated County are considered to be within WUI areas, which are at higher risk of adverse effects from wildfire events. Figure 2.7-6 depicts WUI areas within the unincorporated County while Table 2.7-11 identifies the proposed acreage of WUI areas by community under the General Plan Update.

In addition to being located within areas that are at high risk of wildland fires, economic and environmental barriers exist within the County that may prevent adequate response to wildland fire events. For example, in the event of a major wildland fire event, adequate fire response staff may not be available within the County, requiring the need to recruit fire fighters from across or outside the State. To compound the issue, funding for adequate fire protection services and personnel is often inadequate. Additionally, response times for a wildland event may be inadequate due to insufficient access. Fire response and access is further discussed in Section 2.13, Public Services. Infrastructure constraints, such as an insufficient supply of water to fight large wildland fires, may also contribute to an increased risk of wildland fire hazards. This issue is further discussed in Section 2.16, Utilities and Service Systems.

### Federal, State and Local Regulations and Existing Regulatory Processes

Federal, State and county regulations exist that reduce hazards to the public and environment from wildland fires. These include, but are not limited to, the following: 1) NDAA, which provides assistance in the event of an emergency; 2) County Vegetation and Other Flammable Materials Ordinance, which addresses the accumulation of weeds, rubbish, and other materials that can create fire hazards; 3) County Removal of Fire Hazards Regulatory Ordinance, which ensures adequate defensible space to prevent wildland fires; 4) FPPs, which require the review and analysis of fire hazards in projects under discretionary review; and 5) County Consolidated Fire Code, which has requirements more stringent than State requirements with regards to access roadways, building ignition-resistant construction, vegetation clearance, water supply, and locations of structures on property.

In the County of San Diego, proposed development projects go through a review process in which County staff evaluates potential fire hazards using the County's Guidelines for Determination of Significance and the Consolidated Fire Code. The applicable Fire Authority Having Jurisdiction (FAHJ) is consulted on new projects along with the San Diego County Fire

Authority. In all cases, a Fire Service Availability form must be approved for fire services before a development project can be approved.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes several goals and policies within the Land Use Element, Conservation and Open Space Element and Safety Element that would reduce the exposure of people and the environment to wildland fire risks. Goal LU-6 aims to create a built environment in San Diego County that is in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.11 would direct development away from hazardous wildfire areas or other unavoidable hazardous areas by designating these areas for lower density land uses. Goal LU-10 utilizes semi-rural and rural lands to buffer communities, protect natural resources, foster agriculture, and accommodate unique rural communities. Policy LU-10.2 would require development in semi-rural and rural areas to respect and conserve the unique natural features and rural character, while preserving sensitive environmental resources and hazard areas. Goal S-3 aims to minimize injury, loss of life, and damage to property produced by structural or wildland fire hazards. Policy S-3.1 would require new development to be located, sited, designed and constructed to enhance defensibility and to minimize the risk of structural loss and life safety resulting from wildland fires. Policy S-3.2 would require new development located on ridgelines, top of slopes, saddles or other topographic areas to be sited and designed to account for topography in wildland areas that pose a greater fire risk. Policy S-3.3 would site and design new development to minimize the likelihood of a wildfire spreading to structures by limiting pockets, peninsulas, or islands of fire-prone vegetation within a development. Policy S-3.4 would locate new development where fire and emergency services are or will be available. Policy S-3.6 would ensure that new development located within hazard severity areas adequately implements mitigation measures that reduce the risk of structural loss and life safety due to wildfire. Additionally Policy S-3.7 requires fire safe construction for all new development, remodels, and rebuilds to meet current ignition resistance construction codes.

Goal S-4 aims to create managed vegetation fuel loads, including ornamental and wildland vegetation, particularly in areas of wildland-urban interface. Policy S-3.1 supports programs consistent with State law that require fuel management/modification within established defensible space boundaries. Policy S-4.1 supports fuel management programs that balance fuel management needs with the preservation of native vegetation to reduce the probability of a large, catastrophic fire event.

Goal COS-18 aims to provide alternate energy systems while minimizing environmental impacts. Policy COS-18.3 supports this goal by requiring alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

**Summary**

Implementation of the proposed General Plan Update would result in land uses that allow residential, commercial and industrial development in areas that are prone to wildland fires. This is due to the fact that the majority of the unincorporated County is located in High or Very High fire threat hazard areas. Implementation of the General Plan Update would result in a potentially significant impact from the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands. While existing County

policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with wildland fires, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact involving wildland fires and specific implementation programs are identified as mitigation.

### *2.7.3.9 Issue 9: Vectors*

**Guidelines for Determination of Significance**

Based on the County of San Diego Guidelines for Determining Significance, Vectors, the proposed General Plan Update would have a significant impact if it would substantially increase human exposure to vectors capable of spreading disease by:

a. Proposing a vector breeding source including, but not limited to, sources of standing water for more than 72 hours (e.g., ponds, stormwater management facilities, constructed wetlands); or

b. Proposing a vector breeding source including, but not limited to, composting or manure management facilities, confined animal facilities, or animal boarding/breeding/training operations.

**Impact Analysis**

Typical adverse effects related to vectors are two-fold. First, vectors can cause potentially significant public health risks due to the transmission of disease to human and animal populations. Second, vectors can create a nuisance for the residents of the County. A project that proposes a source of vector breeding habitat could result in an unnecessary increase in vector populations. When the vector breeding source is located near a substantial human population, a potentially adverse environmental effect could occur. Similarly, placing a substantial number of people near an existing off-site vector breeding source could significantly increase the potential exposure of people to vectors.

Implementation of the proposed General Plan Update would allow for the creation of sources of standing water that would persist for more than 72 hours. As a result, this could substantially increase human exposure to vectors, such as mosquitoes, that are capable of transmitting potentially significant public health diseases or creating nuisances. Additionally, implementation of the proposed project would encourage agricultural operations that involve the production, use and/or storage of manure or a composting operation.

**Federal, State and Local Regulations and Existing Regulatory Processes**

On the federal level, the Center for Disease Control oversees the Division of Vector-Borne Infectious Diseases and implements programs to prevent hazards from vectors. On the State level, Sections 116110 through 116112 of the California H&SC establishes mosquito abatement and vector control districts. And on the local level, the County Department of Environmental Health implements the Vector Surveillance Program provides the public with early detection of public health threats, mosquito control, property inspection, on-site advice, public education, and information on controlling vectors. When new development projects in the County have particular vector sources associated with them, the plans are forwarded to DEH for additional

review. In most such cases, a vector control plan will be prepared and implemented as part of that project.

**Proposed General Plan Update Goals and Policies**

General Plan Update Policy COS-6.2 would require adequate buffers around agricultural operations that could decrease the potential for vectors. However, other proposed General Plan Update goals and policies intended to protect environmental resources could actually increase potential vector breeding sources. Goals and policies identified in the Conservation Open Space Element that would increase potential human exposure to vectors are summarized below. Goal COS-3 would implement measures that protect wetlands from adverse impacts and encourage the restoration and enhancement of degraded wetlands. Policy COS-3.1 would require new development to avoid wetland areas so that existing wetlands and associated upland buffers are protected and opportunities for enhancement are retained. This policy would also minimize any disturbances to wetland areas when total avoidance is not feasible.

Goal COS-4 aims to create a balanced and regionally integrated water management approach to achieve the long-term viability of San Diego County's water quality and supply. Policy COS-4.3 would maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces and by providing on-site detention of stormwater.

Goal COS-5 would implement the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.2 would encourage new development in groundwater-dependant areas to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation for percolation into the groundwater.

Goal COS-6 encourages a viable and long-term agricultural industry and the sustainability of agricultural land uses in San Diego County that serve as a beneficial resource and contributor to the County's rural character and open space network. Policy COS-6.3 encourages that when planning for new development adjacent to agricultural land uses, site compatible recreational and open space uses and multi-use trails adjacent to the agricultural lands, where these uses are mutually beneficial and would minimize conflicts with non-agricultural land uses.

**Summary**

The proposed project would be required to comply with existing regulations and processes associated with vector control. Therefore, the General Plan Update would not create a significant hazard to the public or the environment by substantially increasing human exposure to vectors. Impacts would be less than significant.

## 2.7.4 Cumulative Impacts

Typically, the geographic scope of cumulative impact analysis for hazardous materials includes the area immediately surrounding the affected hazardous materials location. However, the proposed project includes the entire unincorporated County. Therefore, for the purposes of this

analysis, the geographic scope of cumulative impact analysis is the unincorporated County and immediately surrounding areas.

### 2.7.4.1 Issue 1: Transportation, Use, and Disposal of Hazardous Materials

Cumulative projects within the region are likely to result in new development which would include facilities that involve the use, storage, disposal or transport hazardous materials, and potentially increase hazards to the public or the environment. For example, the general plans of surrounding jurisdictions would contain industrial land use designations which would allow businesses to handle large quantities of hazardous materials, thereby increasing the use, storage and disposal of hazardous materials. Additionally, the transportation of hazardous materials would increase in the region as a result of an expanded and improved highway system, as proposed in the SCAG RTP and SANDAG RTP. However, similar to the proposed project, cumulative projects would be required to comply with regulations applicable to the use, disposal and transportation of hazardous materials, including RCRA, CERCLA, the Hazardous Materials Transportation Act, IFC, and CCRs Title 22 and Title 27. Cumulative projects in Mexico would not be subject to these regulations; however, any transportation of hazardous materials from Mexico into the U.S. would be required to comply with the above mentioned regulations. Therefore, any potential significant impacts would be reduced to below a level of significance through compliance with applicable regulations. Therefore, the identified cumulative projects would not result in a significant cumulative impact.

Implementation of the proposed General Plan Update would involve the increased transport, use, and disposal of hazardous materials. However, potential direct impacts would be considered less than significant because of required compliance with existing federal, State and local regulations. As described above, a potentially significant cumulative impact associated with this issue is would not occur. Therefore, implementation of the General Plan Update would not contribute to a cumulative impact.

### 2.7.4.2 Issue 2: Accidental Release of Hazardous Materials

The implementation of various cumulative projects, such as private projects not included in the General Plan Update (see Chapter 1.0, Project Description Table 1-11), would increase the likelihood of hazards to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Generally, as the population increases, services and industries, such as dry cleaners and industrial manufacturing, which commonly store, use and dispose of hazardous materials, would increase to service the expanding population. As the services and industries that use hazardous materials increase, the risk of accidental release associated with these services and industries would also increase. Cumulative projects would be subject to regulations regarding the handling of hazardous materials, such as Chemical Accident Prevention Provision, RCRA, Robert T. Stafford Disaster Relief and Emergency Assistance Act, California H&SC, CCR Title 23, Aboveground Petroleum Storage Act, CalARP, Emergency Response to Hazardous Materials Incidents, and the California Emergency Services Act. Cumulative projects in Mexico would not be subject to these regulations; however, an accidental release of a hazardous material in Mexico would be unlikely to contribute to a cumulative impact because the area of exposure would be limited to the immediate surrounding area. These regulations would reduce

the risks associated with an accidental release of hazardous materials from cumulative projects. Therefore, a potentially significant cumulative impact would not occur.

Implementation of the General Plan Update would result in land uses, such as limited impact industrial, medium impact industrial, and high impact industrial, that commonly store, use, and dispose of hazardous materials. In some cases, even commercial and residential uses can involve storage or handling of hazardous substances. Industries and businesses using hazardous materials are anticipated to expand or increase to accommodate the needs of the projected population growth under the General Plan Update. However, all future development as allowed under the land-use designations proposed by the General Plan Update would be required to comply with applicable federal, State and local regulations related to the transportation, storage and use of hazardous materials. Compliance with such regulations would minimize the potential for an accidental hazardous materials release to occur and provide planning for prompt and effective cleanup in the event of an accidental release. As described above, a potentially significant cumulative impact associated with this issue would not occur. Therefore, implementation of the General Plan Update would not result in a cumulatively considerable contribution to hazardous materials releases.

### *2.7.4.3 Issue 3: Hazards to Schools*

Cumulative projects in the region, such as the SCAG RTP and SANDAG RTP and various energy projects, would increase infrastructure, services and the quality of life in the area, to accommodate regional population growth. As population increases in the region, public services, such as schools, and industries and services that use hazardous materials, such a manufacturing and dry cleaners, would concurrently increase. Proposed schools could potentially be located in the vicinity of facilities that emit hazardous emissions or handle hazardous or acutely hazardous materials, while existing schools could be affected by new or expanded facilities that use hazardous waste. However, cumulative projects would be subject to CEQA/NEPA review and CEC requirements. These requirements, such as mandated hazard investigations for potential school sites and analyses of proposed projects or existing land uses, would reduce the risk of cumulative projects to emit hazardous materials within one-quarter mile of schools. Cumulative projects in Mexico would not be subject to these regulations; however, the cumulative projects would be unlikely to contribute to a cumulative impact because the area of exposure would be limited to the immediate surrounding area. Therefore, a significant cumulative impact would not occur.

The proposed General Plan Update would result in land uses that have a high potential for hazardous materials usage to be located within one-quarter mile of an existing or proposed school or daycare. However, compliance with federal and State regulations pertaining to hazardous wastes, as discussed in Section 2.7.3.3, would ensure that risks associated with hazardous emissions and schools would remain at a less than significant level. As described above, a potentially significant cumulative impact associated with this issue would not occur. Therefore, the proposed project would not contribute to a potentially significant cumulative impact.

### *2.7.4.4 Issue 4: Existing Hazardous Materials Site*

It is reasonable to assume that surrounding jurisdictions have multiple existing hazardous materials sites, pursuant to Government Code Section 65962.5, similar to San Diego County.

Therefore, implementation of cumulative projects, such as development consistent with surrounding jurisdictions general plans, energy projects, or private projects not included in the General Plan Update, would result in the location of a project on a site with existing hazardous materials issues, which would result in a potentially significant impact to the public or environment. However, most cumulative projects would be required to undergo CEQA/NEPA review, in addition to abiding by applicable regulations that prevent risks associated with existing hazardous materials sites, such as CERCLA, PRGs, Cortese List, and CHHSLs. Cumulative projects in Mexico would not be subject to these regulations; however, the development of hazardous sites in Mexico would be unlikely to contribute to a cumulative impact because the area of exposure would be limited to the immediate surrounding area. Therefore, cumulative projects would not result in a significant cumulative impact associated with existing hazardous materials sites.

Implementation of the proposed General Plan Update would result in facilities being located on a site that would create potentially significant hazards to the public or environment, such as those pursuant to Government Code 65962.5, burn dump sites, active, abandoned or closed landfills, FUDS, areas with historic agriculture, or areas with petroleum contamination. However, any future development of the land uses proposed under the General Plan Update would be required to comply with federal, State, and local regulations and County policies related to existing on-site hazardous materials contamination. Therefore, the proposed General Plan Update would have a less than significant direct impact. As described above, a potentially significant cumulative impact associated with this issue would not occur. Therefore, the proposed project, in combination with other cumulative projects, would not contribute to a potentially significant cumulative impact.

### *2.7.4.5 Issue 5: Public Airports*

Cumulative projects, such as general plans in surrounding jurisdictions or developments on tribal lands or within Mexico, would potentially result in incompatible land uses within the vicinity of a public airport. This could result in a potentially significant safety hazard for people residing or working in these project areas. However, cumulative projects would be subject to safety regulations, such as ALUCPs, FAA standards and the State Aeronautics Act, which would reduce the potential for safety hazards to below a level of significance. Therefore, cumulative projects would not result in a potentially significant cumulative impact.

Implementation of the General Plan Update would result in a potentially significant impact for people residing or working in the project area and within two miles of a public airport. However, as discussed above, a potentially significant cumulative impact would not occur from the combined effects of other cumulative projects. Therefore, the proposed General Plan Update would not contribute to a potentially significant cumulative impact.

### *2.7.4.6 Issue 6: Private Airports*

Cumulative projects, such as general plans in surrounding jurisdictions or developments on tribal lands or within Mexico, would potentially result in incompatible land uses within the vicinity of a private airport. This could potentially result in a significant safety hazard for people residing or working in these project areas. However, cumulative projects would be subject to safety regulations, such as FAA standards, DOD standards and the State Aeronautics Act, which

would reduce the potential for safety hazards to below a level of significance. Therefore, cumulative projects would not result in a potentially significant cumulative impact.

Implementation of the General Plan Update would result in a potentially significant impact for people residing or working in the project area and within two miles of a private airport. As discussed above, a potentially significant cumulative impact would not occur from the combined effects of other cumulative projects. Therefore, the proposed General Plan Update would not contribute to a potentially significant cumulative impact.

### *2.7.4.7 Issue 7: Emergency Response and Evacuation Plans*

Cumulative projects, such as development consistent with surrounding jurisdictions general plans, energy projects, or private projects not included in the General Plan Update, would have the potential to impair existing emergency and evacuation plans. This could occur from any of the following: 1) an increase in population that is induced from cumulative projects which are unaccounted for in emergency plans; 2) an increase in population that emergency response teams are unable to service adequately in the event of a disaster; or 3) evacuation route impairment if multiple development projects concurrently block multiple evacuation or access roads. However, cumulative projects would be required to comply with applicable emergency response and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, and local fire codes. Therefore, due to existing regulations, cumulative projects would not result in a significant cumulative impact.

Land uses and subsequent development implemented under the proposed General Plan Update have the potential to interfere with adopted emergency response and evacuation plans. However, implementation of the proposed General Plan policies, implementation programs and existing regulations would reduce this impact to a level below significance. As discussed above, a potentially significant cumulative impact would not occur. Therefore, the proposed General Plan Update, in combination with other cumulative projects, would not contribute to a significant cumulative impact.

### *2.7.4.8 Issue 8: Wildland Fires*

Southern California has a history of experiencing frequent and intensive wildland fires, which have exposed people and structures to a potentially significant loss of life and property. Some cumulative projects would occur in areas that are considered high or very high fire hazard severity zones. Growth occurring in the San Diego region, implemented under various cumulative projects, would likely place people and/or property within danger of wildland fires, due the widespread risk across the region. Although regulations exist to reduce hazards associated with wildland fires, they would not reduce the risk to below a level of significance. Therefore, the cumulative impact associated with wildland fires would be significant.

Implementation of the proposed General Plan Update would result in land uses that allow residential, commercial and industrial development in areas that are prone to wildland fires. Implementation of the General Plan Update would result in a potentially significant impact from the exposure of people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands. Therefore, the proposed project's contribution to this significant cumulative impact would be cumulatively considerable.

### *2.7.4.9 Issue 9: Vectors*

Cumulative projects, such as surrounding jurisdictions general plans, would potentially contribute to vector breeding sources in a similar manner to those of the proposed County General Plan Update. Cumulative projects that incorporate environmental measures such as conserving wetlands or encouraging agricultural operations would inadvertently increase vector breeding sources. However, cumulative projects would be required to follow CDC Division of Vector-Borne Infectious Diseases and California HS&C requirements regarding vector transmission. Cumulative projects in Mexico would not be subject to these regulations; however, cumulative projects in Mexico would be unlikely to contribute to a cumulative impact related to vectors because the area of exposure would be limited to the immediate surrounding area. Therefore, cumulative project compliance with these requirements would reduce potential cumulative impacts to below a level of significance. A significant cumulative impact with respect to vectors would not occur.

The proposed project would not result in a significant impact related to an increase in vectors within the unincorporated County. As discussed above, cumulative projects would not result in a significant cumulative impact. Therefore, the project would not contribute to a significant cumulative impact.

## 2.7.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would result in a less than significant impact regarding potential increases in hazards to the public and environment from the transportation, use and disposal of hazardous materials; an accidental release of hazardous materials; existing hazardous materials sites; and vectors. However, the proposed General Plan Update would result in potentially significant direct impacts regarding public airports, private airports, emergency response, and wildland fire hazards. The proposed project would not result in any significant cumulative impacts to the above mentioned issues, with the exception of wildland fire hazards.

## 2.7.6 Mitigation

### *2.7.6.1 Issue 1: Transport, Use, and Disposal of Hazardous Materials*

Impacts related to the transportation, use and disposal of hazardous materials are less than significant given the existing regulations, policies, plans and guidelines discussed above. Therefore, mitigation is not necessary.

### *2.7.6.2 Issue 2: Accidental Release of Hazardous Materials*

Impacts related to the related to the accidental release of hazardous materials are less than significant given the existing regulations, policies, plans and guidelines discussed above. Therefore, mitigation is not necessary.

### *2.7.6.3 Issue 3: Hazards to Schools*

Impacts related to the related to hazardous materials and schools were found to be less than significant given the existing regulations, policies, plans and guidelines discussed above. Therefore, mitigation is not necessary.

### *2.7.6.4 Issue 4: Existing Hazardous Materials Sites*

Impacts related to the related to existing hazardous materials sites were found to be less than significant given the existing regulations, policies, plans and guidelines discussed above. Therefore, mitigation is not necessary.

### *2.7.6.5 Issue 5: Public Airports*

The following General Plan Update policies and mitigation measures would mitigate proposed project impacts related to hazards associated with public airports to below a level of significance.

**General Plan Update Policies**

**Policy LU-4.7: Airport Land Use Compatibility Plans (ALUCP).** Coordinate with the Airport Land Use Commission (ALUC) and support review of Airport Land Use Compatibility Plans (ALUCP) for development within Airport Influence Areas.

**Policy M-7.1: Meeting Airport Needs.** Operate and improve airport facilities to meet air transportation needs in a manner that adequately considers impacts to environmental resources and surrounding communities and to ensure consistency with Airport Land Use Compatibility Plans.

**Policy S-15.1: Land Use Compatibility.** Require land uses surrounding airports to be compatible with the operation of each airport.

**Policy S-15.2: Airport Operational Plans.** Require operational plans for new public/private airports and heliports, as well as future operational changes to existing airports, to be compatible with existing and planned land uses that surround the airport facility.

**Policy S-15.3: Hazardous Obstructions within Airport Approach and Departure.** Restrict development of potentially hazardous obstructions or other hazards to flight located within airport approach and departure areas or known flight patterns and discourage uses that may impact airport operations or do not meet Federal or State aviation standards. Specific concerns include heights of structures near airports and activities which can cause electronic or visual impairments to air navigation or which attract large numbers of birds (such as landfills, wetlands, water features, and cereal grain fields).

**Mitigation Measures**

**Haz-1.1** Implement the Guidelines for Determining Significance, Airport Hazards, when reviewing new development projects to ensure compatibility with surrounding

airports and land uses and apply appropriate mitigation when impacts are significant.

**Haz-1.2** Participate in the development of ALUCPs and future revisions to the ALUCPs to ensure the compatibility of land uses and airport operations.

**Haz-1.3** Review the AICUZ when reviewing new development projects within the study area. Ensure that such development projects are consistent with the land use compatibility and safety policies therein.

**Haz-1.4** Facilitate coordination between DPW and DPLU staff when planning new airports or operational changes to existing airports when those changes would produce new or modified airport hazard zones.

**Haz-1.5** Coordinate with the San Diego County Regional Airport Authority (SDCRAA) and County Airports for issues related to airport planning and operations.

### *2.7.6.6 Issue 6: Private Airports*

The General Plan Update policies and mitigation measures listed under Issue 5: Public Airports are applicable to this issue and incorporated here by reference. In addition, the following policy and mitigation measure would also contribute to reducing impacts associated with people residing or working within two miles of a private airstrip. With implementation of all applicable policies and mitigation measures, impacts would be reduced to below a level of significance.

**General Plan Update Policies**

**Policy S-15.4: Private Airstrip and Heliport Location.** Locate private airstrips and heliports outside of safety zones and flight paths for existing airports where they are compatible with surrounding established and planned land uses, and in a manner to avoid impacting public roadways and facilities.

**Mitigation Measures**

**Haz-2.1** Implement and revise as necessary the Zoning Ordinance requiring MUPs for private airports and heliports.

### *2.7.6.7 Issue 7: Emergency Response and Evacuation Plans*

The following General Plan Update policies and mitigation measures would mitigate proposed project impacts related to the impairment of emergency response and evacuation plans to below a level of significance.

**General Plan Update Policies**

**Policy S-1.3: Risk Reduction Programs.** Support efforts and programs that reduce the risk of natural and man-made hazards and that reduce the time for responding to these hazards.

**Policy M-1.2: Interconnected Road Network.** Provide an interconnected public road network with multiple connections that improve efficiency by incorporating shorter routes between trip origin and destination, disperse traffic, reduce traffic congestion in specific areas, and provide both primary and secondary access/egress routes that support emergency services during fire and other emergencies.

**Policy M-3.3: Multiple Ingress and Egress.** Require development to provide multiple ingress/egress routes in conformance with State law and local regulations.

**Policy M-4.3: Rural Roads Compatible with Rural Character.** Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, utilize rural road design features (e.g., no curb and gutter improvements) to maintain community character consistent with Community Plans.

**Mitigation Measures**

**Haz-3.1** Facilitate coordination between DPLU and the Office of Emergency services to implement and periodically update the Hazard Mitigation Plan.

**Haz-3.2** Implement the CEQA Guidelines for Determining Significance to ensure that discretionary projects do not adversely impact emergency response or evacuation plans. Also implement the County Public Road Standards and County Private Road Standards during these reviews and ensure that road improvements are consistent with Emergency Response and Evacuation Plans. Apply appropriate mitigation when impacts are significant.

**Haz-3.3** Prepare Fire Access Road network plans and include in Community Plans or other document as appropriate. Also implement the County Fire Code and require fire apparatus access roads and secondary access for projects.

### *2.7.6.8 Issue 8: Wildland Fires*

The General Plan Update policies and mitigation measures provided under the respective subheadings below would minimize the proposed project's potentially significant impact associated with the wildland fire risk. However, even with mitigation measures in place, continued development and growth under the General Plan Update would occur in areas that are known to be at high risk for wildland fires. This is due to the fact that the majority of the unincorporated County is classified as High or Very High fire risk (see Figure 2.7-5). The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with wildland fires; however, not to below a significant level. Additional mitigation measures have been identified that would fully reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts associated with wildland fires to below a level of significance. However, the County has determined that these measures would be infeasible as described below; therefore, these mitigation measures would not be implemented.

- Require development guidelines to be prepared and incorporated into all community plans that would limit the amount of future development in order to reduce hazards associated with wildland fires. Restrictions on the type or amount of development within a community would conflict with areas identified for increased growth under the General Plan Update. Therefore, this measure would be infeasible because community plans are required to be consistent with the adopted General Plan. The measure would also conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

- Substantially reduce planned densities in areas of concern. This measure would be considered infeasible because the majority of the unincorporated County is located in areas of concern for wildland fires. Implementation of this mitigation measure would result in significant growth restrictions in areas identified for increased growth in the General Plan Update. As such, this measure would conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

- Approve only development that is located in LRA or SRA areas that are considered to have a moderate fire hazard. This measure would be considered infeasible because, the majority of the unincorporated County is classified as having a higher than moderate risk for wildland fires under LRA and SRA areas (see Figure 2.7-5). Implementation of this mitigation measure would result in significant growth restrictions in areas identified for increased growth in the General Plan Update. As such, this measure would conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

- Require extensive fuel modification around existing and future development in wildland areas. This measure would be infeasible because it would substantially impact the environment by damaging biological resources, altering drainage patterns, causing erosion, and modifying the visual landscape. This would conflict with the objective to protect natural resources and habitat that uniquely define the County's character and ecological importance.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in reduced impacts to wildland fire hazards as compared to the proposed project.

## General Plan Update Policies

Implementation of the General Plan Update policies listed below would reduce the proposed project's impacts to wildland fire hazards, however, not to below a level of significance.

**Policy LU-6.11: Protection from Wildfires and Unmitigable Hazards.** Assign land uses and densities in a manner that minimizes development in extreme, very high and high hazard fire areas or other unmitigable hazardous areas.

**Policy LU-10.2: Development—Environmental Resource Relationship.** Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.

**Policy S-3.1: Defensible Development.** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.

**Policy S-3.2: Development in Hillsides and Canyons.** Require development located near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affect its susceptibility to wildfires to be located and designed to account for topography and reduce the increased risk from fires.

**Policy S-3.3: Minimize Flammable Vegetation.** Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets, peninsulas, or islands of flammable vegetation within a development.

**Policy S-3.4: Service Availability.** Plan for development where fire and emergency services are available or planned.

**Policy S-3.6: Fire Protection Measures.** Ensure that development located within fire threat areas implement measures that reduce the risk of structural and human loss due to wildfire.

**Policy S-4.1: Fuel Management Programs.** Support programs consistent with State law that require fuel management/modification within established defensible space boundaries and when strategic fuel modification is necessary outside of defensible space, balance fuel management needs to protect structures with the preservation of native vegetation and sensitive habitats.

**Policy COS-18.3: Alternate Energy Systems Impacts.** Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

## Mitigation Measures

Implementation of the General Plan Update mitigation measures listed below would reduce the proposed project's impacts to wildland fire hazards, however, not to below a level of significance.

**Haz-4.1** Identify and minimize potential fire hazards for future development by using and maintaining a database that identifies fire prone areas, locating development away from Fire Hazard areas whenever practicable, and adhering to the County Guidelines for Determining Significance for Wildland Fires & Fire Protection and applying appropriate mitigation when impacts are significant.

**Haz-4.2** Conduct effective and environmentally sensitive brush management measures such as: addressing habitat-specific fire controls within Resource Management Plans; implementation of the Weed Abatement Ordinance and enforcing proper techniques for maintaining defensible space around structures; coordination with the local FAHJ to ensure that district goals for fuel management and fire protection are being met; and recognizing the Memorandum of Understanding between the wildlife agencies and fire authorities that guides the abatement of flammable vegetation without violating environmental regulations for habitat protection.

**Haz-4.3** Enforce and comply with Building and Fire Code to ensure there are adequate fire service levels; and require site and/or building designs that incorporate features that reduce fire hazards. Also implement the General Plan Regional Category map and Land Use Maps, which typically show lower densities in wildland areas.

**Haz-4.4** Create a Conservation Subdivision Program that facilitates conservation-oriented, fire-safe, project design through changes to the Subdivision Ordinance, Resource Protection Ordinance, Zoning Ordinance, Groundwater Ordinance, and other regulations as necessary.

### *2.7.6.9 Issue 9: Vectors*

Impacts related to the exposure of the public to vectors were found to be less than significant due to the existing regulations, policies, plans and guidelines that are in place to regulate vectors, as discussed above. Therefore, mitigation is not necessary.

## 2.7.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.7.7.1 Issue 1: Transport, Use, and Disposal of Hazardous Materials*

Implementation of the proposed General Plan Update would result in an increase in the transportation, use and disposal of hazardous materials from an increase in land uses that commonly store, use, and dispose of hazardous materials, such as limited impact industrial, medium impact industrial, and high impact industrial development. However, the project would be required to comply with federal, State and local regulatory requirements, including RCRA, CERCLA, Hazardous Materials Transportation Act, CFC, Title 22, CCR Title 27, and the County Consolidated Fire Code, which strictly regulate the transportation, use and disposal of

hazardous materials. Additionally, the proposed General Plan Update includes multiple goals and policies related to the responsible transportation, use and disposal of hazardous materials. Therefore, impacts would be less than significant. Additionally, the project would not contribute to a significant cumulative impact.

### *2.7.7.2 Issue 2: Accidental Release of Hazardous Materials*

Implementation of the General Plan Update would result in land uses, such as limited impact industrial, medium impact industrial, and high impact industrial, that commonly store, use, and dispose of hazardous materials. Additionally, industries and businesses using hazardous materials would expand or increase to accommodate the projected population growth under the General Plan Update. However, all future development allowable under the proposed land uses of the General Plan Update, would be required to comply with applicable federal, State and local regulations related to the accidental release of hazardous materials. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release did occur. These regulations include, but are not limited to Chemical Accident Prevention Provision, RCRA, the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the California H&SC, CCR Title 23, the Aboveground Petroleum Storage Act, CalARP, Emergency Response to Hazardous Materials Incidents, the California Emergency Services Act, and the County Consolidated Fire Code. Therefore, required compliance with existing regulations would reduce project impacts related to an accidental hazardous materials release to below a level of significance. Additionally, the project would not contribute to a significant cumulative impact.

### *2.7.7.3 Issue 3: Hazards to Schools*

The proposed General Plan Update would result in land uses that have a high potential for hazardous materials to be located within one-quarter mile of an existing or proposed school or daycare. However, compliance with General Plan Update policies and federal and State regulations pertaining to hazardous wastes, including the CEQA Guidelines, would ensure that risks associated with hazardous emissions and schools would be below a level of significance. Additionally, the project would not contribute to a significant cumulative impact.

### *2.7.7.4 Issue 4: Existing Hazardous Materials Sites*

Under implementation of the proposed General Plan Update, land uses and development would be located on a site that would create potentially significant hazards to the public or environment, such as those pursuant to Government Code 65962.5, burn dump sites, active, abandoned or closed landfills, FUDS, areas with historic or current agriculture, or areas with petroleum contamination. However, future development of land uses proposed under the General Plan Update would be required to comply with applicable General Plan Update policies and existing federal, State, and local regulations related to existing on-site hazardous materials contamination. Therefore, the proposed General Plan Update would have a less than significant impact. Additionally, the project would not contribute to a significant cumulative impact.

### 2.7.7.5 Issue 5: Public Airports

Generally, land uses proposed under the General Plan Update and within the vicinity of public airports include rural lands, open space, semi-rural lands, and federal and State lands. However, under the General Plan Update, some public airports, such as Fallbrook Community Airpark, would be located adjacent to land uses such as village residential, which would maintain higher density populations and have the potential to result in significant hazards to the public. Although the proposed project would be required to comply with the ALUCP, development within an AIA of a public airport would have the potential to increase the risk of people living or working in these areas to hazards associated with airport operations. Therefore, project impacts would be potentially significant. However, the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations such as ALUCPs, FAA regulations and the State Aeronautics Act, would mitigate proposed project impacts related to hazards associated with public airports to below a level of significance. Additionally, the project would not contribute to a significant cumulative impact.

### 2.7.7.6 Issue 6: Private Airports

Implementation of the proposed General Plan Update would result in land use designations that allow development within the two miles of a private airport. Therefore, the proposed project would result in a safety hazards for people residing or working in the project area and would result in a potentially significant impact. However, the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations such as FAA regulations, DOD AICUZ, and the State Aeronautics Act, would mitigate proposed project impacts related to hazards associated with private airports to below a level of significance. Additionally, the project would not contribute to a significant cumulative impact.

### 2.7.7.7 Issue 7: Emergency Response and Evacuation Plans

Implementation of the General Plan Update would increase land uses and development in areas of the County that would not have accounted for this growth in their existing emergency response and evacuation plans. Therefore, the proposed project would have the potential to impair emergency response and evacuation plans. This is considered to be a potentially significant impact. However, the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations such as the Multi-Jurisdictional Hazard Mitigation Plan and the Dam Evacuation Plan, would mitigate proposed project impacts to below a level of significance. Additionally, the project would not contribute to a significant cumulative impact.

### 2.7.7.8 Issue 8: Wildland Fires

Implementation of the proposed General Plan Update would result in land uses that allow residential, commercial and industrial development in areas that are prone to wildland fires. This is due to the fact that the majority of the unincorporated County is located in high or very high fire hazard severity zones. Implementation of the General Plan Update would have the potential to expose people or structures to a potentially significant risk of loss, injury, or death involving wildland fires. Therefore, impacts are considered significant. The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts related to wildland fires. However, impacts

would not be reduced to below a significant level and therefore would remain significant and unavoidable. In addition, implementation of the proposed General Plan Update would result in a cumulatively considerable contribution to a significant cumulative impact associated with wildland fires.

### *2.7.7.9 Issue 9: Vectors*

Future development of land uses consistent with the General Plan Update would have the potential to increase human exposure to vectors. However, project compliance with existing regulations, policies, plans and guidelines associated with vector control would ensure that significant impacts do not occur. Therefore, the proposed project would not result in a significant impact associated with vectors. Additionally, implementation of the General Plan Update would not contribute to a significant cumulative impact related to exposure to vectors.

## Table 2.7-1. Land Uses Surrounding Active Landfills

| Landfill Name | Surrounding Land Use Type | Acres | Affected Community Planning Area |
|---|---|---|---|
| Borrego Springs | Facilities | 40 | Desert, Borrego Springs |
| | Agriculture | 48 | |
| | Circulation | 89 | |
| | Parks | 191 | |
| | Undeveloped | 7,688 | |
| Las Pulgas | Water | 6 | Pendleton-De Luz |
| | Circulation | 119 | |
| | Military | 7,912 | |
| Miramar | Military | 1 | City of San Diego |
| | Water | 4 | |
| | Agriculture | 68 | |
| | Facilities | 275 | |
| | Commercial | 615 | |
| | Industrial | 915 | |
| | Residential | 1,042 | |
| | Parks | 1,084 | |
| | Undeveloped | 1,552 | |
| Otay | Agriculture | 10 | Otay, City of San Diego, City of Chula Vista |
| | Commercial | 161 | |
| | Industrial | 228 | |
| | Parks | 328 | |
| | Circulation | 603 | |
| | Facilities | 775 | |
| | Residential | 864 | |
| | Undeveloped | 5,068 | |
| Ramona | Commercial | 24 | Ramona, North Mountain, North County Metro |
| | Facilities | 59 | |
| | Parks | 166 | |
| | Circulation | 262 | |
| | Residential | 1,266 | |
| | Agriculture | 1,652 | |
| | Undeveloped | 4,599 | |
| | Undesignated | 10 | |
| San Onofre | Facilities | 4 | Pendleton/De Luz |
| | Agriculture | 65 | |
| | Residential | 161 | |
| | Circulation | 445 | |
| | Military | 7,362 | |
| Sycamore | Water | 97 | City of San Diego, City of Santee |
| | Commercial | 323 | |
| | Facilities | 362 | |
| | Circulation | 554 | |
| | Military | 614 | |
| | Residential | 823 | |
| | Parks | 1,894 | |
| | Undeveloped | 3,371 | |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007c

## Table 2.7-2. Registered "Active" Hazardous Waste Transporters in Unincorporated Areas of San Diego County

| Transporter[(1)] Name | Location[(1)] | Company Services[(2)] |
|---|---|---|
| EFR Environmental Services | Lakeside | Waste Removal, Waste Solids and Liquid Removal, RCRA, NON-RCRA, Transportation Services |
| Erreca's Inc. | Lakeside | Heavy engineering highway contractor and site development specialist, concentrating in highway/heavy construction |
| Burns & Sons Trucking, Inc. | Spring Valley | Construction Trucking Company |
| Heavy Metal Environmental Services, Inc. | Spring Valley | Sampling, Testing, Remediation, Monitoring, Clearance and Hazardous Transport |
| Casper Company | Spring Valley | Hazardous Materials Abatement |

(1) Information adapted from DTSC list of hazardous waste transporters (DTSC 2008c)
(2) Information adapted from respective companies public domain websites

## Table 2.7-3. Hazardous Waste Transfer Facility Characteristics

| Transfer Facility | Permitted | | Exempt |
|---|---|---|---|
| | RCRA Permit Facility | Standardized Permit Facility | Exempt Transfer Facility |
| Operated by…. | Owner/operator of facility | Owner/operator of facility | Operated by the transporter |
| Is authorized to…. | Receive wastes as designated on the permit, (must sign all manifests).<br>Open containers in an authorized unit to sample, transfer or bulk package containerized wastes to a tank or another container.<br>Store wastes as specified in permit.<br>Handle wastes as specified in permit. | Transfer and store Non-RCRA wastes (common examples are used oil, anti-freeze, wastes containing copper and other metals).<br>Open containers in an authorized unit to sample, transfer or bulk package containerized wastes to a tank or another container. | Transfer wastes in containers from one vehicle to another.<br>Move waste containers from truck onto ground, into a storage building or another truck, and move a trailer from one tractor to another.<br>Hold wastes in containers on site of a transportation related facility for: 1) 6 days or less at facilities located in commercial, or mixed zoned areas; or 2) 10 days or less at facilities located in industrial or agricultural zoned areas. |
| Restrictions…. | n/a | n/a | Waste must remain in the container it was in when offered by the generator.<br>May only park in areas that DOT and other hazardous materials laws, regulations and ordinances allow (areas zoned for residential land uses are prohibited). |
| Is NOT authorized to… | Act as a transfer facility for wastes specifically prohibited in permit conditions, or<br>Act as an exempt transfer facility for wastes that are designated to the facility | Store waste oil for longer than 35 days | Open Containers<br>Pump from one container to tank, tank to tank, or tank to container.<br>Bulk of consolidate at Exempt Transfer facility<br>Repackage wastes in any way (except for emergencies). |

Source: DTSC 2006

## Table 2.7-4. San Diego County-Operated Airports

| Airport | Location | Annual Operations | | Based Aircraft | Acreage |
|---|---|---|---|---|---|
| | | 2006 | 2025[1] | | |
| **Airports located within unincorporated County** | | | | | |
| Agua Caliente | Desert Subregion | 650 | 4,000 | 1 | 160[2] |
| Borrego Valley | Desert Subregion | 20,853 | 50,000 | 23 | 200 |
| Fallbrook | Fallbrook | 32,586 | 51,700 | 112 | 293 (County owned)<br>7.3 (easement) |
| Jacumba | Mountain Empire | 325 | 4,100 | 0 | 131 |
| Ocotillo | Desert Subregion | 405 | 2,900 | 0 | 351 |
| Ramona | Ramona | 155,121 | 197,000 | 214 | 378 (County owned)<br>23 (easement) |
| **Airports located outside unincorporated County** | | | | | |
| Gillespie Field | City of El Cajon | 283,355 | | 740 | 775 |
| McClellan-Palomar[3] | City of Carlsbad | 201,220 | | 426 | 487 |

(1) Projections from Airport Land Use Compatibility Plan, December 2006
(2) Leased land
(3) Airport includes a heliport
Source: DPLU 2007e

## Table 2.7-5. Private Airports Located in Unincorporated San Diego County

| Community Planning Area | Airstrip Name (If Any) | Acreage | Ownership |
|---|---|---|---|
| Alpine | On the Rocks | 6 | Private |
| | | 2 | U.S. Forest Service (USFS) |
| Bonsall | | 7 | Private |
| Central Mountain | | 7 | Private |
| Desert | | 4 | Federal Bureau of Land Management |
| | | 10 | Private |
| | | 16 | Private |
| | | 14 | Private |
| | | 4 | Private |
| | Borrego Air Ranch | 11 | Private |
| Jamul/Dulzura | Klein Airport | 4 | Private |
| Julian | Hunt's Sky Ranch | 4 | Private |
| Mountain Empire | | 4 | Private |
| | | 2 | Private |
| | | 7 | Private |
| North County Metro | Lake Wohlford | 4 | City of San Diego |
| | Lake Wohlford | 4 | Private |
| | | 5 | Private |
| North Mountain | | 22 | Private |
| | | 5 | Private |
| | | 13 | Private |
| | | 8 | Private |
| | | 5 | Private |
| | Warner Springs Airport | 99 | Private |
| | Ward Airport | 1 | Private |
| Otay | | 15 | City of San Diego |
| | | 41 | City of San Diego |
| Pala/Pauma | Pauma Air Park | 45 | Private |
| | Pauma Air Park | 7 | Private |
| | Lyall-Roberts Airport | 3 | Private |
| Pendleton/De Luz | | 3 | Private |
| | | 9 | USFS |
| Ramona | Flying T Ranch | 4 | Private |
| Valley Center | Blackinton Airpark | 7 | Private |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007e

## Table 2.7-6. Safety Zone Aircraft Accident Risk Characteristics

| Zone | Description | Nominal Dimensions (California Airport Land Use Planning Handbook) | Relative Risk Level | Nature of Accident Risk | Percent of Accidents in Zone (Handbook database) |
|---|---|---|---|---|---|
| 1 | Runway Protection Zone (RPZ) primarily located on airport property and airport ownership is encouraged) | May depend upon approach visibility minimums<br>1,200 feet minimum and 2,700 feet maximum beyond runway ends;<br>125 to 500 feet from centerline adjacent to runway<br>Acreage (one runway end): 8 to 79 (RPZ only) | Very High | Landing undershoots and overshoots<br>Overruns on aborted takeoffs<br>Loss of control on takeoff | Arrivals: 28%–56%<br>Departures: 23%–29%<br>Total: 33%–39% |
| 2 | Inner Safety Zone | Along extended runway centerline<br>2,000 feet minimum and 6,000 feet maximum zone area beyond runway ends<br>Acreage (one runway end): 44 to 114. | High | Aircraft at low altitude with limited directional options in emergencies<br>Typically under 400 feet on landing<br>On takeoff, engine at maximum stress | Arrivals: 9%–15%<br>Departures: 3%–28%<br>Total: 8%–22% |
| 3 | Inner Turning Zone | Fan-shaped area adjacent to Zone 2<br>2,000 feet minimum, 4,000 feet maximum zone area from runway ends<br>Acreage (one runway end): 50 to 151 | Moderate | Turns at low altitude on arrival for aircraft flying<br>Tight base leg present, stall-spin potential<br>Likely touchdown area if an emergency at low altitude occurs during takeoff, especially to the left of the centerline | Arrivals: 2%–6%<br>Departures: 5%–9%<br>Total: 4%–7% |
| 4 | Outer Safety Zone | Along extended runway centerline<br>3,500 feet minimum, 10,000 feet maximum beyond runway ends<br>Acreage (one runway end): 35 to 92 | Low to Moderate | Low altitude overflight for aircraft on straight-in approaches, especially instrument approaches<br>On departure, aircraft normally completes transition from takeoff power and flap settings to climb mode, and begins turns to en-route heading | Arrivals: 3%–8%<br>Departures: 2%–4%<br>Total: 2%–6% |
| 5 | Sideline Zone (Primarily located on airport property) | Adjacent to runway<br>500 feet minimum, 1,000 feet maximum from centerline<br>Acreage: varies with runway length | Low to Moderate | Low risk on landing<br>Moderate risk from loss of directional control on takeoff, especially with twin-engine aircraft | Arrivals: 1%–3%<br>Departures: 5%–8%<br>Total: 3%–5% |
| 6 | Traffic Pattern Zone | Oval area around other zones<br>5,000 feet minimum, and 10,000 feet maximum beyond runway ends<br>4,500 feet minimum and 6,000 feet maximum from runway centerline<br>Acreage: varies with runway length | Low | Significant percentage of accidents, but spread over wide area<br>Widely varied causes | Arrivals: 10%–21%<br>Departures: 24%–39%<br>Total: 18%–29% |

Source: Caltrans 2002b

## Table 2.7-7. Existing Wildland Urban Interface (WUI) Fire Threat in Acreage

| North County | WUI acres |
|---|---|
| Bonsall | 21,036 |
| Fallbrook | 35,818 |
| North County Metro | 29,680 |
| Hidden Meadows | 10,130 |
| Twin Oaks | 8,188 |
| Pala/Pauma | 58,695 |
| Pendleton/De Luz | 151,756 |
| Rainbow | 9,663 |
| San Dieguito | 29,864 |
| Valley Center | 54,362 |

| East County | WUI acres |
|---|---|
| Alpine | 60,069 |
| County Islands | 323 |
| Crest/Dehesa | 20,193 |
| Jamul/Dulzura | 77,808 |
| Lakeside | 41,968 |
| Otay | 8,688 |
| Ramona | 76,950 |
| Spring Valley | 5,035 |
| Sweetwater | 7,465 |
| Valle de Oro | 9,644 |

| Backcountry | WUI acres |
|---|---|
| Central Mountain | 14,160 |
| Cuyamaca | 21,712 |
| Descanso | 20,034 |
| Pine Valley | 49,625 |
| Desert | 66,324 |
| Borrego Springs | 30,139 |
| Julian | 27,636 |
| Mountain Empire | 24,110 |
| Boulevard | 39,006 |
| Jacumba | 18,448 |
| Campo/Lake Morena | 49,162 |
| Potrero | 18,276 |
| Tecate | 3,061 |
| North Mountain | 117,047 |
| Palomar Mountain | 18,176 |

Note: Data has been rounded to nearest whole number.
Source: CalFIRE 2003

## Table 2.7-8. History of Major Wildfires in San Diego County (1996-2007)

| Date | Name | Acres Burned | Structures Destroyed | Deaths |
|---|---|---|---|---|
| October 2007 | Poomacha Fire | 49,410 | 217 | 0 |
| | Marine Corps Base Camp Pendleton Fires (Ammo, Wilcox & Horno Fires) | 21,004 | 0 | 0 |
| | Rice Fire | 9,472 | 248 | 0 |
| | Witch Fire | 197,990 | 1,634 | 2 |
| | Harris Fire | 90,440 | 548 | 5 |
| July 2006 | Horse Fire | 16,700 | 0 | 0 |
| July 2004 | Mataguay Fire | 8,867 | 4 | 0 |
| October 2003 | Paradise Fire | 57,000 | 415 | 2 |
| | Cedar Fire | 280,278 | 5,171 | 14 |
| | Otay Fire | 46,291 | 6 | 0 |
| | Roblar Fire | 8,592 | 0 | 0 |
| July 2003 | Coyote Fire | 18,704 | 3 | 0 |
| July 2002 | Pines Fire | 61,690 | 45 | 0 |
| February 2002 | Gavilan Fire | 6,000 | 43 | 0 |
| January 2001 | Viejas Fire | 10,353 | 23 | 0 |
| July 2000 | Pechanga Fire | 11,733 | 5 | 0 |
| September 1999 | La Jolla Fire | 7,800 | 2 | 1 |
| October 1996 | Harmony Grove Fire | 9,438 | 54 | 0 |

( - ) indicates information is not available
Source: CAL FIRE 2008

## Table 2.7-9. Land Uses within One-Quarter Mile of School Facilities

| Land Use Designations[(1)] | Acres Within ¼ mile of a School |
|---|---|
| General Commercial | 656 |
| Limited Impact Industrial | 34 |
| Medium Impact Industrial | 105 |
| Military Installations | 577 |
| National Forest and State Parks | 221 |
| Neighborhood Commercial | 7 |
| Office Professional | 77 |
| Open Space (Recreation) | 812 |
| Public/Semi-Public Facilities | 3,315 |
| Rural Commercial | 266 |
| Rural Lands (RL-80) | 1,446 |
| Semi-rural Residential (SR-4) | 5,594 |
| Specific Plan Area | 1,551 |
| Tribal Lands | 356 |
| Village Core Mixed Use | 230 |
| Village Residential (VR-7.3) | 7,947 |

(1) Land use designations not listed have zero acreage located within ¼ mile of a school facility

Note: Data has been rounded to nearest whole number.

Source: DPLU GIS 2008

## Table 2.7-10. Sensitive Receptors within One-Quarter Mile of Sites Pursuant to Government Code 65962.5

| | Hospitals | Residential Parcels[(1)] | Schools | Long-term Residential Care Facilities | Licensed Day Care Facilities |
|---|---|---|---|---|---|
| **Community Planning Areas** | | | | | |
| Alpine | 0 | 43 | 0 | 0 | 0 |
| County Island | 0 | 104 | 0 | 0 | 0 |
| Desert | 0 | 6 | 0 | 0 | 0 |
| Fallbrook | 0 | 319 | 1 | 1 | 1 |
| Lakeside | 0 | 359 | 2 | 0 | 3 |
| North County Metro | 0 | 318 | 1 | 0 | 0 |
| Ramona | 0 | 23 | 0 | 0 | 0 |
| San Dieguito | 0 | 524 | 4 | 0 | 1 |
| Spring Valley | 0 | 129 | 0 | 0 | 0 |
| Sweetwater | 0 | 42 | 0 | 0 | 0 |
| Valle De Oro | 0 | 102 | 1 | 0 | 0 |
| Valley Center | 0 | 7 | 0 | 0 | 0 |
| Bonsall | 0 | 95 | 1 | 0 | 0 |
| Boulevard | 0 | 4 | 0 | 0 | 0 |
| Campo/Lake Morena | 0 | 6 | 0 | 0 | 0 |
| Jacumba | 0 | 2 | 0 | 0 | 0 |
| Hidden Meadow | 0 | 19 | 0 | 0 | 0 |
| Twin Oaks | 0 | 11 | 0 | 0 | 0 |
| **Total** | **0** | **2,113** | **10** | **1** | **5** |

(1) Residential Parcels have been identified as those with an Assessed Improvement Value >=$10,000. While this is not necessarily indicative of a residential structure on the parcel, this methodology has shown that these parcels do contain something of value and therefore are included in this analysis.

Source: DPLU GIS 2008

## Table 2.7-11. Acreages Proposed Within Wildland Urban Interface (WUI) Areas under the Proposed General Plan Update

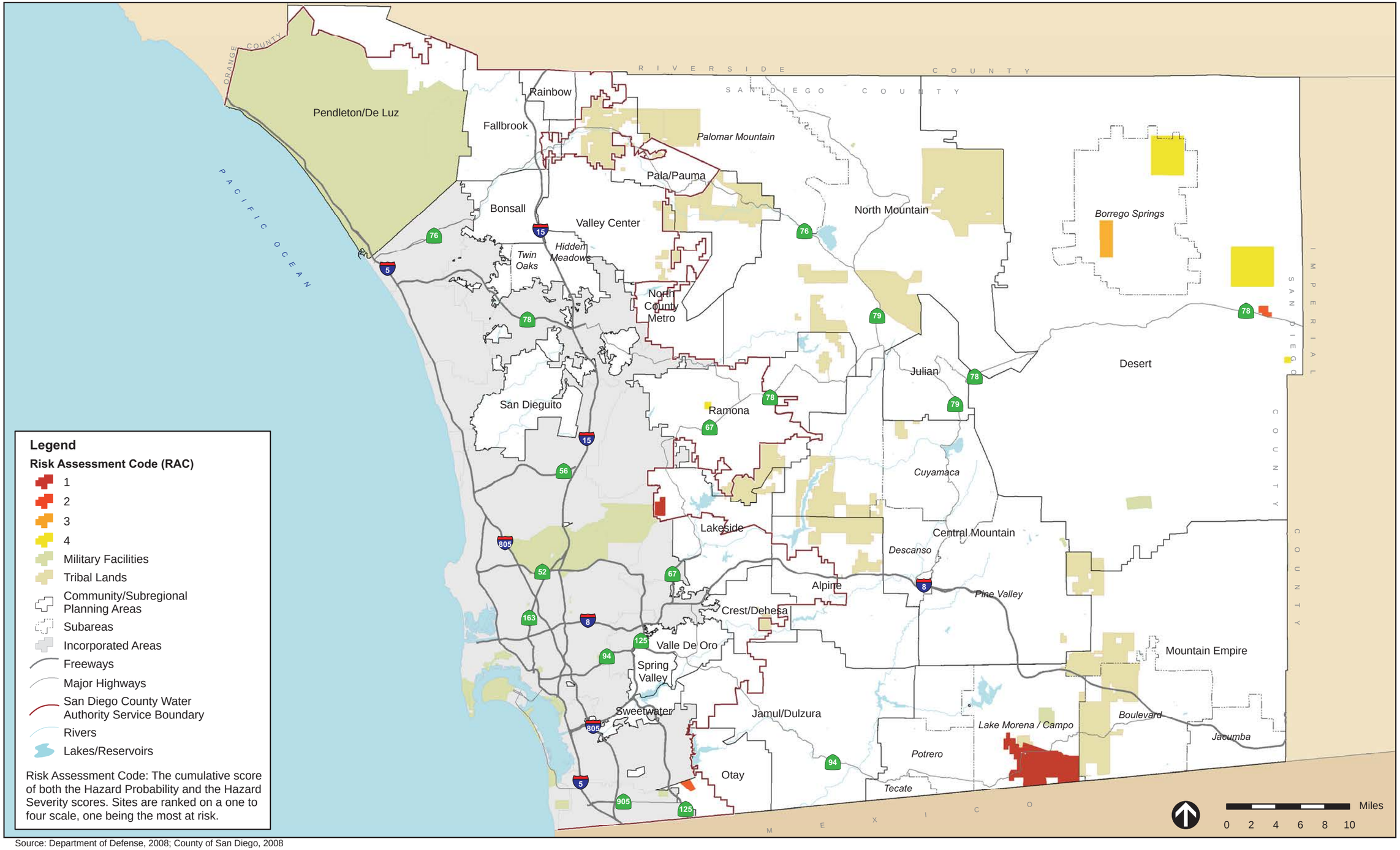
| North County | WUI acres |
|---|---|
| Bonsall | 17,008 |
| Fallbrook | 29,178 |
| North County Metro | 24,028 |
| Hidden Meadows | 7,076 |
| Twin Oaks | 7,871 |
| Pala/Pauma | 31,997 |
| Pendleton/De Luz | 12,264 |
| Rainbow | 8,772 |
| San Dieguito | 15,788 |
| Valley Center | 44,545 |

| East County | WUI acres |
|---|---|
| Alpine | 24,466 |
| County Islands | 116 |
| Crest/Dehesa | 13,309 |
| Jamul/Dulzura | 43,601 |
| Lakeside | 21,993 |
| Otay | 128 |
| Ramona | 56,483 |
| Spring Valley | 2,802 |
| Sweetwater | 2,795 |
| Valle de Oro | 5,078 |

| Backcountry | WUI acres |
|---|---|
| Central Mountain | 2,197 |
| Cuyamaca | 5875 |
| Descanso | 7,148 |
| Pine Valley | 8,290 |
| Desert | 12,893 |
| Borrego Springs | 23,787 |
| Julian | 20,840 |
| Mountain Empire | 1,101 |
| Boulevard | 23,608 |
| Jacumba | 8,950 |
| Campo/Lake Morena | 23,454 |
| Potrero | 13,243 |
| Tecate | 2,325 |
| North Mountain | 45,911 |
| Palomar Mountain | 6,191 |

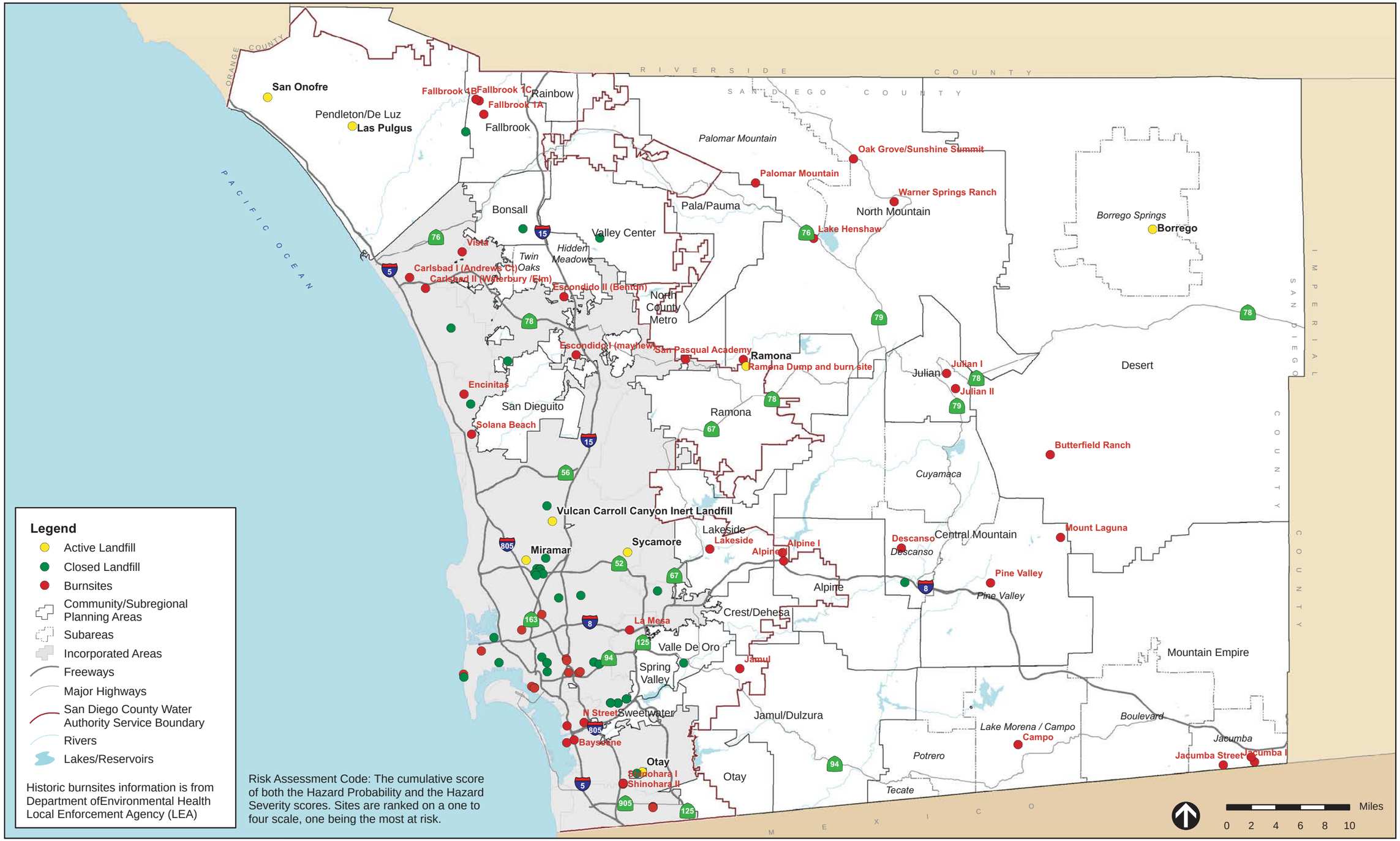
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

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Source: Department of Defense, 2008; County of San Diego, 2008

**UXO/FUDS LOCATIONS** **FIGURE 2.7-1**




**Legend**

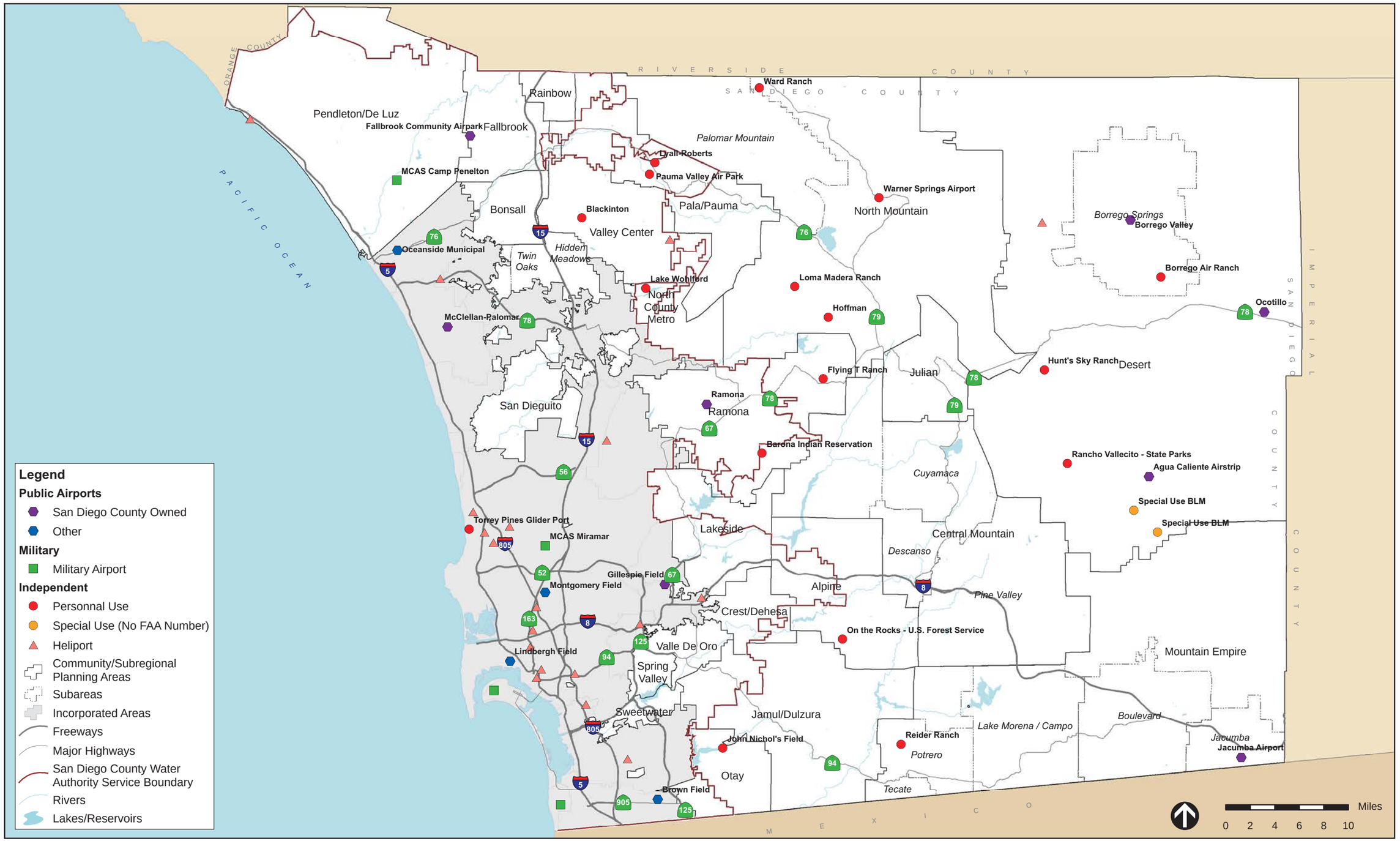
- Active Landfill
- Closed Landfill
- Burnsites
- Community/Subregional Planning Areas
- Subareas
- Incorporated Areas
- Freeways
- Major Highways
- San Diego County Water Authority Service Boundary
- Rivers
- Lakes/Reservoirs

Historic burnsites information is from Department ofEnvironmental Health Local Enforcement Agency (LEA)

Risk Assessment Code: The cumulative score of both the Hazard Probability and the Hazard Severity scores. Sites are ranked on a one to four scale, one being the most at risk.

Source: County of San Diego DEH, 2008; County of San Diego DPLU, 2008

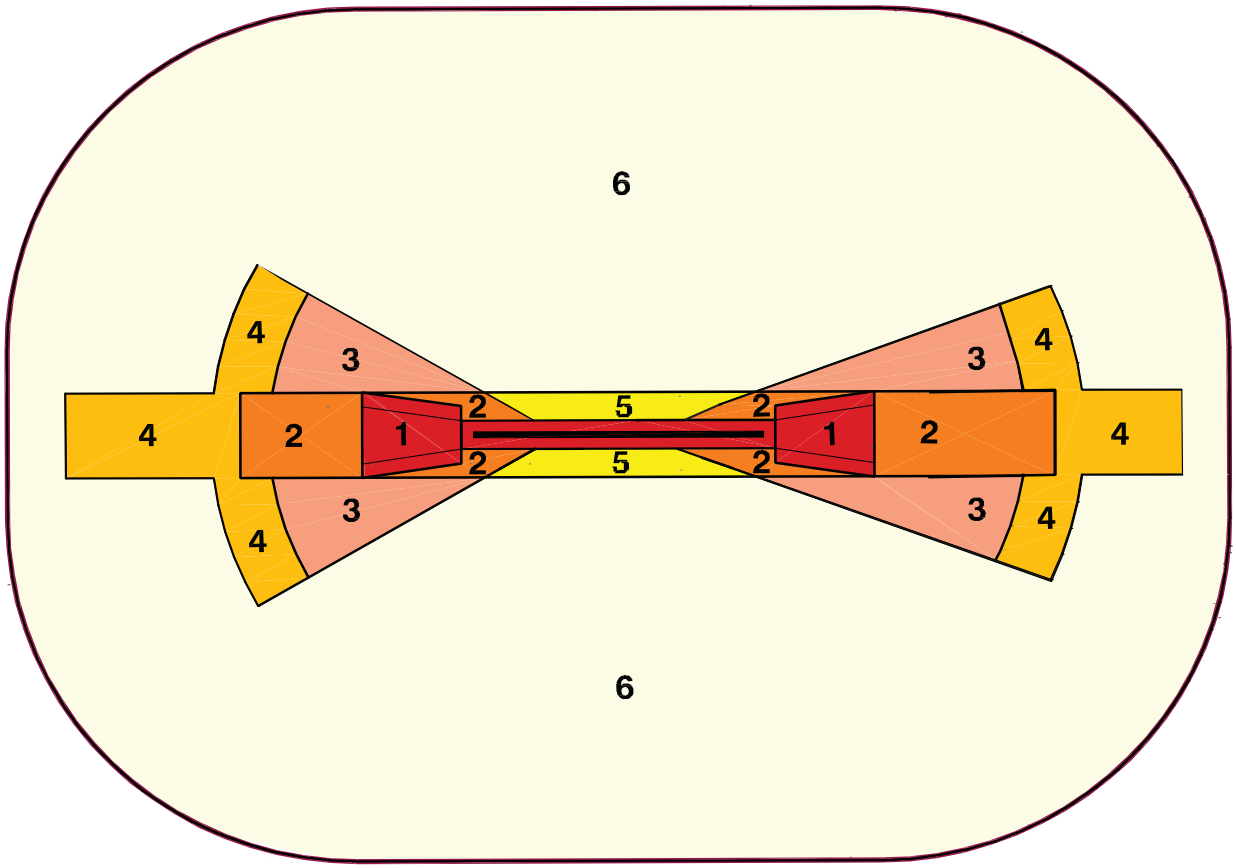
**LOCATION OF ACTIVE LANDFILLS, INACTIVE LANDFILLS AND BURNSITES WITHIN THE COUNTY** **FIGURE 2.7-2**




Source: County of San Diego DPLU, 2008

## MILITARY, PUBLIC AND PRIVATE AIRPORTS

## FIGURE 2.7-3



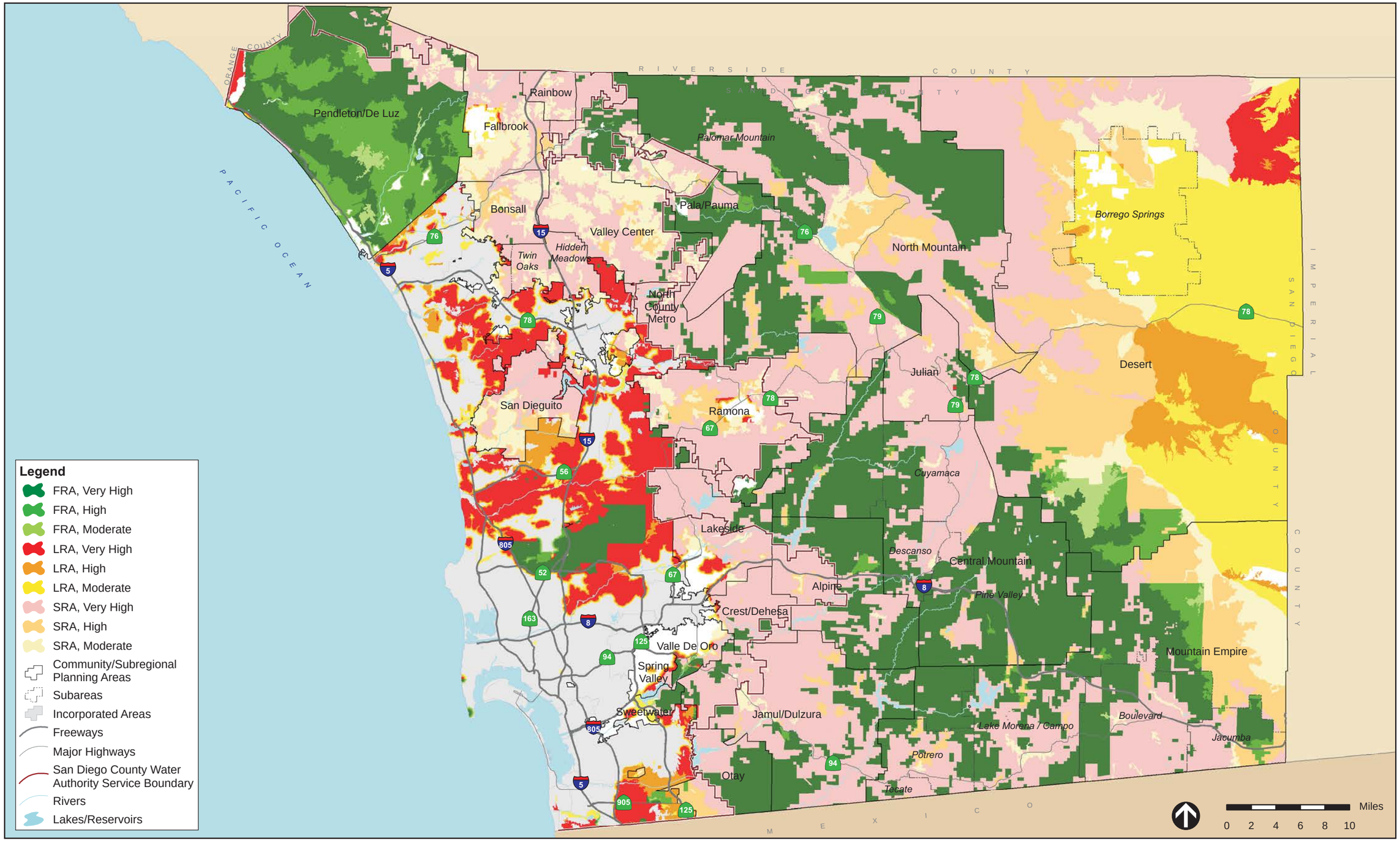

**LEGEND**

| | |
|---|---|
| 1 | Runway Protection Zone |
| 2 | Inner Safety Zone |
| 3 | Inner Turning Zone |
| 4 | Outer Safety Zone |
| 5 | Sideline Zone |
| 6 | Traffic Pattern Zone |
| — | Runway |

SOURCE: San Diego County Airport Land Use Commission, 2006

No Scale

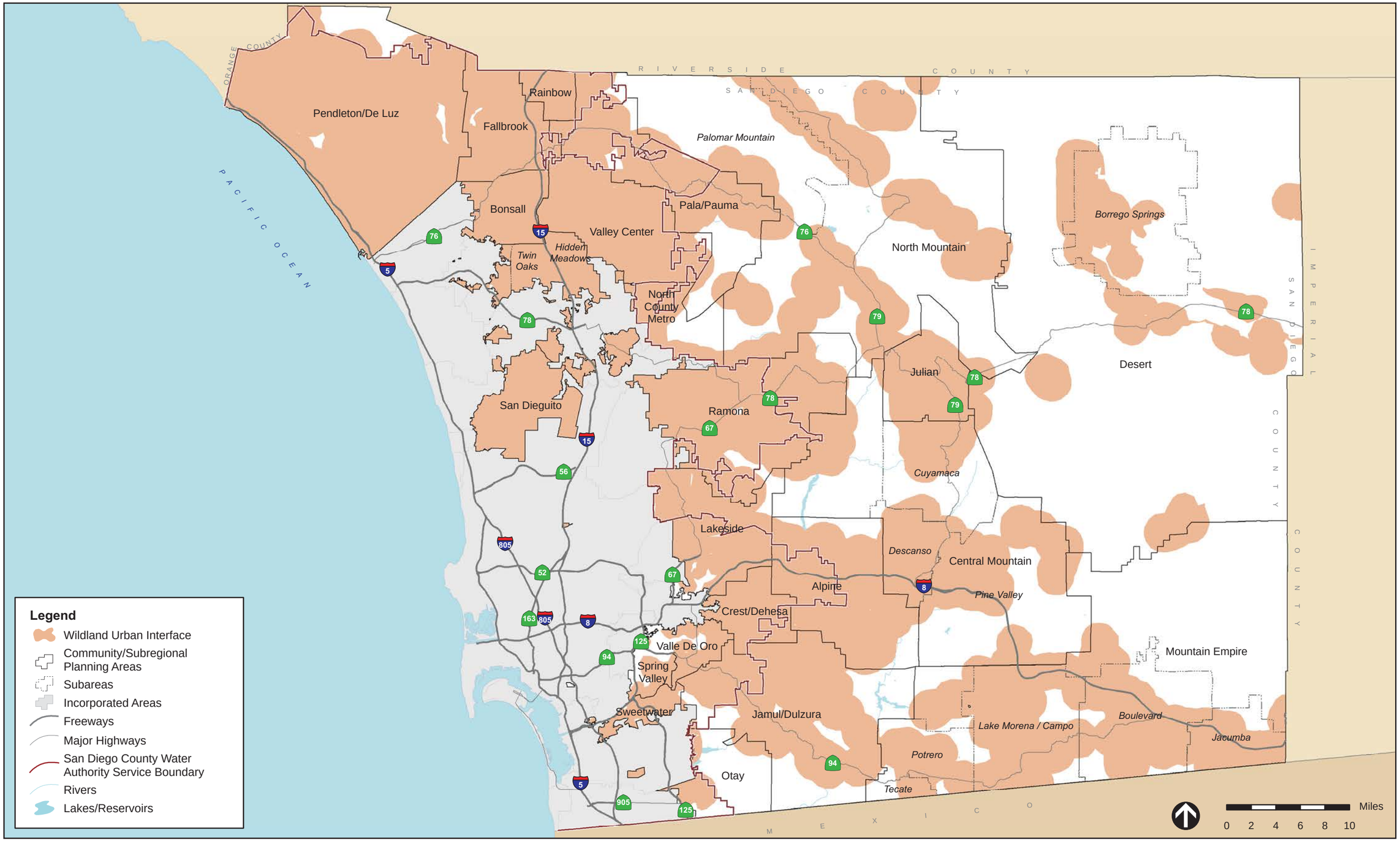
**TYPICAL LAYOUT OF AIRPORT SAFETY ZONES** **FIGURE 2.7-4**




Source: County of San Diego DPLU GIS and SanGIS, 2009; CalFire Data Publication 2008

## COUNTY FIRE HAZARD SEVERITY ZONES IN FRA, SRA, AND LRA

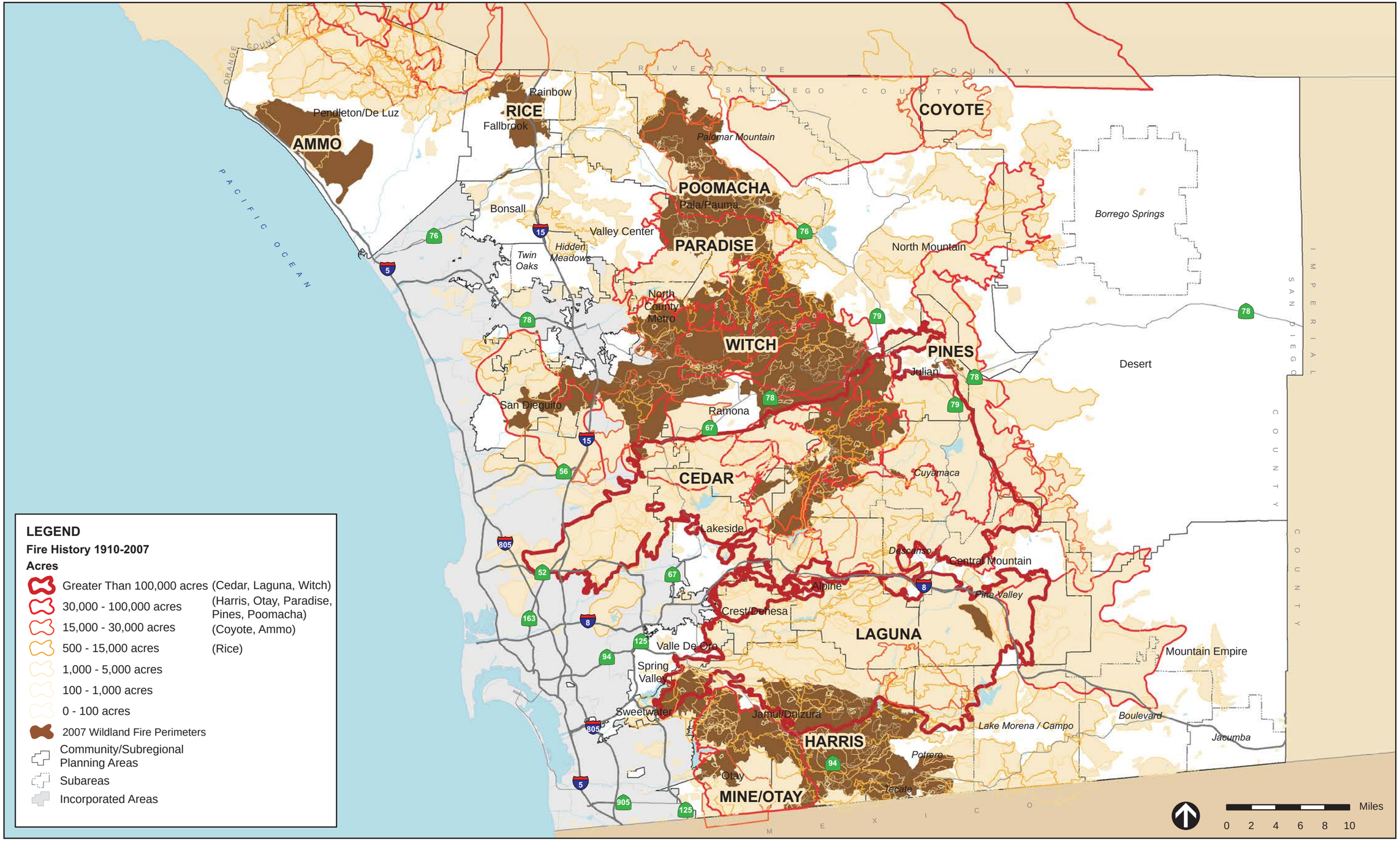
## FIGURE 2.7-5




Source: County of San Diego DPLU GIS and SanGIS, 2008; CalFire Data Publication 2003

## WILDLAND / URBAN INTERFACE AREAS

## FIGURE 2.7-6




Source: County of San Diego DPLU GIS and SanGIS, 2009; California Department of Forestry and FRAP, 2008

## WILDLAND FIRE HISTORY (1910 - 2007)

## FIGURE 2.7-7

# 2.8 Hydrology and Water Quality

The section of the EIR describes existing groundwater, surface water, water quality, stormwater, and flooding conditions within the County and evaluates potential impacts to hydrology and water quality that could result from the implementation of the proposed County General Plan Update. This section is based on information provided in the County of San Diego Guidelines for Determining Significance, Groundwater Resources (DPLU 2007l), County of San Diego Guidelines for Determining Significance, Surface Water Quality (DPLU 2007o); County of San Diego Guidelines for Determining Significance, Hydrology (DPLU 2007n); County of San Diego General Plan Conservation and Open Space Background Report (DPLU 2007b), the 2006-2007 Urban Runoff Monitoring Report for the San Diego County Municipal Copermittees (Weston 2007), the County General Plan Update Groundwater Study (DPLU 2009f), the Water Quality Control Plan for the San Diego Basin (SDRWQCB 1994), the Colorado River Basin-Region 7, Water Quality Control Plan (CRBRWQCB 2005), and additional resources as cited throughout the section.

A summary of the hydrology and water quality impacts identified in Section 2.8.3 is provided below.

**Hydrology and Water Quality Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Water Quality Standards and Requirements | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 2 | Groundwater Supplies and Recharge | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 3 | Erosion or Siltation | Potentially Significant | Less Than Significant | Less Than Significant |
| 4 | Flooding | Potentially Significant | Less Than Significant | Less Than Significant |
| 5 | Exceed Capacity of Stormwater Systems | Potentially Significant | Less Than Significant | Less Than Significant |
| 6 | Housing within a 100-year Flood Hazard Area | Potentially Significant | Less Than Significant | Less Than Significant |
| 7 | Impeding or Redirecting Flood Flows | Potentially Significant | Less Than Significant | Less than Significant |
| 8 | Dam Inundation and Flood Hazards | Potentially Significant | Less Than Significant | Less Than Significant |
| 9 | Seiche, Tsunami and Mudflow Hazards | Potentially Significant | Less Than Significant | Less Than Significant |

## 2.8.1 Existing Conditions

The following section examines existing groundwater resources, surface water resources, stormwater drainage systems, groundwater quality, surface water quality, and flooding and dam inundation areas within the unincorporated County.

### *2.8.1.1 Groundwater Hydrology*

San Diego County overlies a complex groundwater resource that varies greatly throughout the region. The County has three general categories of aquifers that include fractured rock aquifers, alluvial and sedimentary aquifers, and desert basin aquifers. Figure 2.8-1 shows the distribution of these aquifer types throughout the County. The characteristics of these aquifers are discussed below in addition to a discussion of groundwater hydrology issues that currently exist in the County.

The coastal zone of San Diego County is mostly supplied with imported water from member agencies of the San Diego County Water Authority (SDCWA). The remaining portion of the County (approximately 65 percent by area) is completely dependent on groundwater resources, which provides the only source of water for approximately 41,000 residents. Analysis regarding the proposed General Plan Update and the potential for imported and groundwater resources to experience associated environmental impacts is also discussed in Issue 4: Adequate Water Supply, within Section 2.16, Utilities and Service Systems of this EIR.

**Aquifer Characteristics**

**Fractured Rock**

Fractured rock underlies approximately 73 percent of the unincorporated area of the County. Fractured rock aquifers are present in the foothills and mountainous regions of the County where precipitation is higher than in regions with lower elevations. As a result, recharge rates to fractured rock aquifers can be greater than in the lower elevation areas. Additionally, due to the low storage capacity, recharge to fractured rock aquifers can cause relatively fast rises to the water table, which conversely can have relatively fast declines to the water table from groundwater pumping in years without significant recharge. In some areas of the County with particularly low storage, the static groundwater levels have risen or declined in excess of 100 feet in particularly rainy seasons or dry seasons, respectively. Fractured rock aquifers typically have much less storage capacity than alluvial or sedimentary aquifers. As a result, pumping from wells completed in fractured rock typically produces a greater decline in water levels than a similar pumping rate for wells located in alluvium or sediments. Likewise, because less water is typically stored in fractured rock, seasonal variations in precipitation and drought conditions result in greater variations in water levels than in similar conditions in alluvial or sedimentary aquifers. In many cases, fractured rock aquifers are overlain by a layer of weathered bedrock (residuum) and/or a layer of alluvium. The presence of residuum or alluvium may provide additional storage capacity if the water table extends up into these layers. Water stored in these layers may drain into the fractured rock beneath them as water is pumped from the fractured rock. The additional storage in these surficial units may significantly enhance the usability of groundwater resources in some areas relying on groundwater from fractured rock.

**Alluvial and Sedimentary**

Alluvial and sedimentary aquifers are found in approximately 13 percent of the unincorporated area of the County. These aquifers are typically found in river and stream valleys, around lagoons, near the coastline, and in the intermountain valleys. Sediments in these aquifers are composed of mostly consolidated (defined as sedimentary rock) or unconsolidated (defined as alluvium or colluvium) gravel, sand, silt, and clay. Most of these aquifers have relatively high

hydraulic conductivity, porosity, and storage and in general would be considered good aquifers on the basis of their hydrogeologic characteristics. However, some alluvial and sedimentary aquifers in the County have relatively thin saturated thickness and limited storage. Alluvial and sedimentary aquifers can be underlain by fractured rock aquifers, which potentially provide additional storage. Surface water bodies within an alluvial or sedimentary aquifer may increase the recharge of the aquifer due to leakage from the water body into the subsurface area. Because alluvial basins generally occur in low-lying areas of a watershed, surface water runoff may accumulate in streams, lakes, or other surface depressions within alluvial basins and provide an additional recharge source to these basins.

### Desert Basins

Desert basin aquifers are found in approximately 14 percent of the unincorporated area of the County, in the extreme eastern area. In general, desert basin aquifers are characterized by extremely limited groundwater recharge, but typically have large storage capacities. Desert basin aquifers within the County are composed of unconsolidated sediments that typically have storage capacities ranging from five to 30 percent of the total aquifer volume. The storage of an individual basin is a function of the size of the basin, depth of the saturated sediments, and the type of sediments comprising the basin. Precipitation in this area is typically only a few inches per year in the valley of the basins. Runoff and stream flow from the highlands typically recharges along the margins of the basins. Desert basin aquifers are generally characterized by extremely limited recharge and large storage capacities.

## Groundwater Hydrology Issues

Aquifers with limited groundwater in storage (e.g., fractured rock aquifers) and/or limited groundwater recharge (e.g., desert areas) may experience shortages from large groundwater users, such as water companies or districts, agriculture, or other large operations. Areas with large quantity groundwater uses underlain by fractured rock aquifers with little to no residuum are particularly susceptible to localized groundwater problems. In 1991, the County adopted the San Diego County Groundwater Ordinance which contains residential density controls with minimum parcel sizes based on mean annual precipitation. Areas that were developed prior to the implementation of the Groundwater Ordinance may have been developed at densities higher than would be currently allowed which in some cases has lead to localized groundwater problems. Areas where projects are not subject to County regulations, such as the Barona golf course and casino on the Barona reservation, may also result in development that is not supplied with adequate groundwater resources. In all of these cases, it is possible that groundwater shortages occur because the groundwater demand in these areas could exceed the natural recharge of the aquifers, especially in drought years. The following section summarizes the existing groundwater hydrology issues facing the groundwater dependent portion of the unincorporated County, by examining three categories: 1) well yield; 2) large quantity/clustered groundwater users; and 3) Borrego Valley.

### Well Yield

Areas within the unincorporated County with the potential for low well yield are shown in Figure 2.8-2. Wells in a fractured rock aquifer typically yield relatively low volumes of water. In some instances, wells may derive water from only a few water-bearing fractures. Additionally, it is difficult to estimate potential production rates for any new wells drilled in fractured rock aquifers, and wells drilled close together may have significantly different water production rates. This is

because water-producing fracture locations are difficult to identify and predict, and fractures intersected by one well may not be intersected by nearby wells. There are a number of factors that determine the long-term yield for a well in fractured rock aquifers, including the number of fractures intersected, aperture (fracture opening sizes), spacing, orientation, and interconnectivity of fractures, the amount of recharge, the amount of groundwater in storage in the surrounding aquifer, other nearby groundwater extraction, and the installation techniques for a well. Additionally, while low well yields are possible anywhere within fractured rock aquifer areas, steep slope areas above the valley floor are particularly prone to having lower well yield. This is largely due to storage values in steep slope areas often being substantially lower than valley areas, and having a smaller tributary watershed than wells located in valley areas. The General Plan Update Groundwater Study (DPLU 2009f) reports that the median well yield in fractured rock aquifers was approximately 15 gallons per minute (gpm). However, actual data varied substantially. For example, in 86 wells (approximately 11 percent of wells reviewed), well yield was reported as less than three gpm. These wells may struggle to meet the demands of a single-family residence. Several wells also reported a well yield greater than 100 gpm.

Wells in an alluvial or sedimentary aquifer typically yield relatively high volumes of water. Coarse-grained sediments such as sand or gravel typically produce higher volumes of water than finer-grained sediments such as silts or clays. In coarse-grained sediments, well yields may be hundreds of gpm and limited by inefficiencies in the well itself, rather than by limitations in the aquifer's ability to produce water. The General Plan Update Groundwater Study (DPLU 2009f) reported that the median well yield for alluvial and sedimentary aquifers was approximately 36 gpm. The highest well yields were reported in Warner Valley, Jacumba Valley, and the Pala-Pauma Valley Subregion. Several wells averaged greater than 500 gpm and one well in Warner Valley reported averaging 1,500 gpm.

Desert basin wells typically yield relatively high volumes of water due to the coarse-grained nature of the alluvial sediments. Because desert basin wells may be capable of yields in excess of 1,000 gpm, and recharge rates can be extremely low, it is easy to pump more water from the basin than will be naturally recharged. Excessive pumping that exceeds the rate of recharge results in a groundwater overdraft situation, which is not sustainable for long-term groundwater use. Such a condition currently exists in the Borrego Valley area of the unincorporated County.

The General Plan Update Groundwater Study (DPLU 2009f) reported that all steep slope areas in the backcountry have the potential for low well yield, which could result in a rapid decline of the water table and groundwater availability. This is largely due to storage values in steep slope areas often being substantially lower than valley areas, and having a smaller tributary watershed than wells located in valley areas. Ramona Trails Drive in the Ramona CPA is a good example of a steep slope area with low yielding wells. In addition, the General Plan Update Groundwater Study identified three specific areas in Lakeside (Old Barona Road, State Route (SR) 67, and Wildcat Canyon Road) and Morena Village as having a high frequency of wells with low well yield. Well networks in Lakeside have examples of wells with extreme variations of water levels, with declines of 500 feet recorded and recovery of the water table by as much as 450 feet in a single wet season. Periodic trucking of imported water may be needed in these areas to meet the needs of a typical single-family residence.

**Large Quantity/Clustered Groundwater Users**

Due to the fact that production wells for residential and agricultural water uses are not metered or regulated for water quantity by the County, future localized groundwater problems are

possible anywhere in the County from large quantity groundwater users. In addition, areas that were developed prior to the implementation of the Groundwater Ordinance may have been developed at densities higher than would be currently allowed. This has resulted in the clustering of groundwater demand from dense development, making these areas susceptible to localized groundwater problems. Areas of potential impact from large quantity and clustered groundwater users are shown on Figure 2.8-3.

Private residential users of groundwater are estimated to have a consumptive use of approximately 0.5 acre-feet per year (AF/yr) per residence. However, there have been isolated reports of single-family homes that use far greater quantities. Additionally, due to the low storage capacity of fractured rock aquifers, excessive use of groundwater by a single user in a fractured rock aquifer can cause localized impacts to neighboring properties.

In addition, several unincorporated communities and areas were developed with lot sizes smaller than four acres, which has resulted in clustering of groundwater users in these areas. These areas are also potentially susceptible to localized groundwater problems, especially if underlain by fractured rock aquifers with little to no residuum or alluvium. As shown on Figure 2.8-3, the following areas have been identified as having the highest potential for localized groundwater problems (especially during extended drought periods) from the existing pumpage of large amounts of groundwater relative to what the given aquifer can support.

***Ballena Valley (Ramona CPA)***

This valley has historically pumped up to 800 AF/yr of groundwater principally for agricultural uses. The County has records indicating water level declines of up to 500 feet in a single summer.

***Guatay (Central Mountain Subregion)***

Guatay has been identified as having the potential for rapid declines in the water table due to 81 residences and other uses pumping groundwater. Groundwater in Guatay is extracted from a relatively small area at the top of a watershed divide and underlain by fractured rock with low storage capacity. Water levels in a well monitored by the County in 2002 and 2004 were recorded as dry. However, the water table declines noted from 2002 to 2004 recovered during the above average rainfall of 2004-2005.

***Julian Town Center (Julian CPA)***

Two water districts pump groundwater in Julian to serve nearly 800 residential and commercial customers. As compared to wells in other areas of the County, the water table in Julian showed a relatively poor recovery response to the above average rainfall that occurred in 2004-2005. Although the water table in Julian recovered by as much as 70 feet from the 2004-2005 rainfall, as of 2006, the water table was depleted again to near historic lows.

***Morena Village (Mountain Empire Subregion)***

Two water companies pump groundwater from the Morena Village area to serve over 300 residences with an average parcel size just over one acre. Rapid declines in the water table have been recorded in two wells in this area. The water level of one well declined by approximately 200 feet during a two-year period. It should be noted that rapid groundwater declines were not noted in other wells monitored within Morena Village area, which may indicate that rapid declines in groundwater that have occurred are localized impacts. Also, the water

companies have reportedly periodically struggled with providing adequate water supplies during extended drought periods.

**Borrego Valley (Desert Subregion)**

Borrego Valley is located in the northeast portion of the unincorporated County and is a groundwater dependent basin without an imported water supply. The Borrego Valley Basin holds a large amount of groundwater in storage, estimated to be approximately 1.6 million AF of useable groundwater. The basin is characterized by limited recharge due to an annual rainfall of approximately six inches. Groundwater recharge for the Borrego Valley is estimated to average approximately 5,000 AF/yr. Groundwater demand in the Valley is in excess of 20,000 AF/yr. Groundwater demand has increased over the past 20 years due to water uses from over 4,000 acres of agricultural land, golf courses, and residential areas. This high groundwater demand has resulted in an overdraft condition where groundwater extraction exceeds long-term groundwater recharge. Water levels have been declining in the basin for decades as a result of the overdraft condition. Over 500,000 acre-feet (AF) of groundwater has been removed from the aquifer over the past 50 years, and groundwater production at current rates is not sustainable. Water level declines in Borrego Valley are most significant in the agricultural area in the northern portion of the basin which has experienced over 50 feet of water level decline since the County began collecting water level data in the 1980s. Groundwater has and is continuing to be extracted at rates that exceed recharge, which has caused an apparent long-term overdraft condition, also known as groundwater mining. In the past 20 years, rates of decline have increased sharply which is likely in response to new development and additional groundwater extraction.

Based on information provided in the General Plan Update Groundwater Study (DPLU 2009f), the majority of readily available water to existing well users in the Borrego Valley exists in the upper and middle aquifer. The amount of groundwater within these two aquifers was estimated to be approximately 2,131,000 AF in 1945 and 1,900,500 AF in 1979. The remaining water located within the lower aquifer is more difficult and costly to extract due to its low specific yield (estimated to be approximately three percent), its depth, and low specific capacity (estimated to be five gallons per minute/foot of drawdown or less). The Borrego Water District estimated in 1999 that the water remaining in the upper and middle aquifers was approximately 1,685,000 AF.

The U.S. Geologic Survey (USGS) is conducting a new phase of groundwater investigative work in Borrego Valley that is projected to be completed in 2012. The objective is to refine the 1980s USGS groundwater flow model to take advantage of flow modeling tools not available in their 1988 numerical model. The model will be used as a predictive tool to estimate the amount of time left before the groundwater table drops below the pump intake in production wells currently being used in Borrego Valley. Completion of the USGS work should provide a more specific estimation of future groundwater impacts than the estimations in previous studies.

### *2.8.1.2 Surface Water Hydrology*

San Diego County's surface waters are characterized by estuaries, lagoons, bays, lakes, reservoirs, rivers and creeks. These water bodies capture the flow of the region's surface water runoff and become a blend of natural runoff and imported water. Many of these water bodies support natural habitat and recreational areas in addition to acting as storage reservoirs for the

County's water supply. Figure 2.8-4 shows the location of lakes and reservoirs within the County. An inventory of these surface water resources is provided below.

The Laguna Mountains divide San Diego County into two hydrologic regions that can be used to further evaluate surface water characteristics in the County. These include: 1) Colorado Hydrologic Region (CHR); and 2) San Diego Hydrologic Region (SDHR). The CHR has small portions of five hydrologic units (HU) located within east County. These units are collectively referred to as Desert units and contained within the Salton-Sea Transboundary Watershed Management Area (WMA), discussed further below. The SDHR contains 11 HUs within the unincorporated County. These include San Juan, Santa Margarita, San Luis Rey, Carlsbad, San Dieguito, Penasquitos, San Diego, Pueblo San Diego, Sweetwater, Otay, and Tijuana. Figure 2.8-5 shows the boundaries of the HUs within the County.

For the purpose of this section, the HUs in the County will be discussed in terms of WMAs. A watershed is an area of land that drains to a common waterway, such as a stream, lake, estuary, wetland, aquifer or ocean. WMAs are grouped according to HUs and have been developed to implement federal and State statutes for the management of water quality in the region. There are a total of ten WMAs within the unincorporated County. All WMAs within the unincorporated County, with two exceptions, include only one HU and are named accordingly. One exception includes the San Diego Bay WMA which includes the Pueblo San Diego HU, Sweetwater HU, and the Otay HU. The other exception is the Salton-Sea Transboundary WMA which includes five HUs located in portions of San Diego and Imperial Counties. The WMAs are discussed below.

**San Juan WMA**

The San Juan WMA covers 317,440 acres in San Diego, Orange, and Riverside Counties. Approximately 96,000 acres of this area is located in northwestern San Diego County, almost entirely within the Camp Pendleton military base. There is one HU (San Juan) and five hydrologic areas (HAs) in this WMA. The San Onofre and San Mateo HAs are the only HAs located within San Diego County. Major stream systems from these two HAs include San Mateo Creek, San Onofre Creek, and Las Flores Creek. The topography of the San Onofre and San Mateo HAs is varied, ranging from coastal plains in the western portion to the Santa Margarita Mountains in the east, which rise over 2,000 feet above mean sea level. The mouth of San Mateo Creek forms a salt water tidal marsh that is entirely within the Camp Pendleton Marine Corps Base. The land uses within the San Onofre and San Mateo HAs include open space, military base operation areas and agriculture. In addition, there is a State beach along the I-5 corridor near the northern boundary of Camp Pendleton, and a golf course near the southern boundary. Nearby jurisdictions include the City of Oceanside to the south, the City of San Clemente to the north, and the unincorporated community of Fallbrook to the east.

**Santa Margarita River WMA**

The Santa Margarita River WMA is the second largest in the SDHR. It covers over 473,971 acres, with about three quarters of the watershed located in Riverside County and about one quarter located in San Diego County. Included in it are portions of Camp Pendleton as well as the unincorporated communities of Fallbrook, Palomar/North Mountain, Pala-Pauma, Pendleton/De Luz, and Rainbow. The watershed includes one HU (Santa Margarita) and nine HAs, including: Ysidora, De Luz, Murrieta, Auld, Pechanga, Wilson, Cave Rocks, Aguanga, and Oak Grove. The Ysidora HA is located entirely within the County of San Diego, while the De

Luz HA, Pechanga HA, Aguanga HA, and Oak Grove HA cover portions of both San Diego and Riverside Counties. The remainder of the HAs within the Santa Margarita WMA are located entirely within Riverside County. The WMA contains the Santa Margarita River, Temecula Creek, Murrieta Creek, Rainbow Creek, De Luz Creek, Sandia Creek, Santa Margarita Lagoon, Vail Lake, Skinner Reservoir, and Diamond Valley Lake Reservoir. There are nine dams located in the watershed with 92 percent of the river miles categorized as free flowing. Annual precipitation for the portion of the watershed within San Diego County ranges from 10.5 inches in the coastal areas to more than 16.5 inches in the eastern portion of the watershed. The southwestern portion of the watershed is dominated by the Camp Pendleton military base. Most of the WMA, about 66 percent, is undeveloped. Other land uses include agriculture (18 percent), military uses (8 percent), residential uses (4 percent), and parks (4 percent).

**San Luis Rey WMA**

The San Luis Rey River WMA, at 359,887 acres, is the third largest of the watersheds entirely or partially within the County of San Diego. It is located along the northern border of the County and includes the unincorporated areas of Bonsall, Desert, Fallbrook, North County Metro, Palomar/North Mountain, Pala-Pauma, Pendleton/De Luz, Rainbow, and Valley Center. In addition, there are several Indian reservations in the WMA. This WMA consists of one HU (San Luis Rey) and three HAs, including Lower San Luis Rey, Monserate, and Warner Valley. The watershed contains two major water bodies. Lake Henshaw is the main reservoir for the San Luis Rey WMA and is the third largest in San Diego County. The San Luis Rey River is the major stream system. Annual precipitation in this WMA is heavier than in other areas, ranging from less than 12 inches near the ocean to 45 inches near Palomar Mountain. Approximately 95 percent of the WMA consists of lands within the County's jurisdiction. The City of Oceanside comprises about four percent of the watershed and small portions of the Cities of Escondido and Vista, and Riverside County make up the remainder of the WMA. Land use within the watershed is classified primarily as undeveloped (54 percent). Other land uses include agriculture (15 percent), residential (15 percent), parks (9 percent), military (three percent), transportation (two percent), and commercial recreation (one percent). Commercial, industrial, and public facilities land uses make up less than one percent of the land use acreage.

**Carlsbad WMA**

The Carlsbad WMA encompasses 135,322 acres and extends from Lake Wohlford on the east to the Pacific Ocean on the west, and from the Cities of Vista and Oceanside on the north to Cardiff-by-the-Sea on the south. The Carlsbad WMA is primarily located within the jurisdictional boundaries of incorporated cities, including the Cities of Oceanside, Carlsbad, Encinitas, Solana Beach, San Marcos, Vista, and Escondido. However, approximately 31 percent of the WMA is located in unincorporated areas under the jurisdiction of the County, including the North County Metro, Valley Center and San Dieguito Community Planning Areas. It includes one HU (Carlsbad) and six HAs (Loma Alta, Buena Vista Creek, Agua Hedionda, Encinas, San Marcos, and Escondido Creek). The watershed contains five coastal lagoons including Loma Alta Slough, Buena Vista Lagoon, Agua Hedionda Lagoon, Batiquitos Lagoon, and San Elijo Lagoon. The WMA also includes two small reservoirs, Dixon Lake, and Lake Wohlford. The San Marcos Dam controls approximately 53 percent of the San Marcos HA. The area is drained by Buena Vista, Agua Hedionda, San Marcos and Escondido Creeks. Annual rainfall over the watershed varies from 10.5 inches near the coast to 19.5 inches in the inland areas. The most common land use within the watershed management area is residential (35 percent), followed by undeveloped land (21 percent), parks (14 percent), transportation (12 percent), and

agriculture (7 percent). Industrial, commercial, public facilities, commercial recreation, water, and lands under construction make up the remaining 11 percent of land uses within the watershed. The Carlsbad WMA contains the largest percentage of privately owned land in San Diego County, about 75 percent. The remainder of the WMA is owned by local and state governments. The Carlsbad WMA is the second most densely populated WMA in the San Diego Region.

**San Dieguito River WMA**

The San Dieguito River WMA covers 221,307 acres and includes portions of the Cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, as well as the unincorporated communities of Julian, North County Metro, North Mountain, Pala-Pauma, Ramona, San Dieguito, and Valley Center. The WMA consists of one HU (San Dieguito) and five HAs including Solana Beach, Hodges, San Pasqual, Santa Maria Valley, and Santa Ysabel. The watershed contains the San Dieguito River and its tributaries, along with Santa Ysabel and Santa Maria Creeks. It also contains the following reservoirs: Lake Hodges, Lake Ramona, Lake Poway, Sutherland Reservoir, Olivenhain Reservoir, and the San Dieguito Reservoir. There are several important natural areas within the WMA that sustain a number of threatened and endangered species. Annual precipitation ranges from 13.5 inches near the coast to nearly 35 inches in the eastern portion of the watershed. The San Dieguito River WMA is largely located within the unincorporated area (79.8 percent). Land use in the watershed is primarily undeveloped land (42 percent). Other major uses are residential (19 percent), parks (17 percent), and agriculture (15 percent). Transportation, commercial, industrial, public facilities, and water comprise the remaining seven percent of the watershed. Over 60 percent of the watershed is privately owned land. The remaining portions are mostly federal or locally owned with a small percentage of land being State-owned.

**Los Penasquitos Creek WMA**

The Los Penasquitos Creek WMA includes 60,418 acres of land that extends easterly to Iron Mountain and westerly to Los Penasquitos Lagoon. This WMA includes portions of the Cities of Del Mar, Poway, and San Diego, as well as, the unincorporated areas of Lakeside, Ramona, and the Miramar County Island. This WMA contains the Penasquitos HU and the Miramar Reservoir HA, Poway HA, Scripps HA, Miramar HA, and Tecolote HA. The major receiving waters for the Los Penasquitos Creek WMA are the Los Penasquitos Lagoon and Mission Bay. Los Penasquitos Creek WMA is drained by Los Penasquitos Creek which flows into Los Penasquitos Lagoon near the northern border of the City of San Diego within the Torrey Pines State Reserve. Los Penasquitos Lagoon also receives inputs from Carroll Canyon, just south of Los Penasquitos Creek, and McGonigle Canyon to the north. This Lagoon is a 630-acre wetland that lies near the mouth of the Los Penasquitos Creek and provides coastal wetland habitat. Rose Creek and Tecolote Creek are the main tributaries to Mission Bay. Mission Bay is the largest man-made aquatic park in the country, consisting of 4,235 acres, approximately 46 percent land and 54 percent water. Mission Bay was converted from a coastal marshland in the 1940s after the completion of a large dredging project. There are no major streams in this WMA although it is drained by numerous creeks. Annual precipitation ranges from 10.5 inches near the coast to 16.5 inches in the eastern portion of the watershed. Approximately 83 percent of the Los Penasquitos Creek WMA is located in the City of San Diego. Land uses within the watershed include parks and recreation (30 percent), residential (27 percent), and vacant/undeveloped land (15 percent). Other uses are comprised of transportation (12 percent), industrial (7 percent), public facilities/utilities (three percent), commercial (three

percent), and agriculture (one percent). Over 60 percent of the watershed is privately owned land. The remaining portions are locally owned or State and federally owned.

**San Diego River WMA**

The San Diego River WMA covers 277,543 acres and includes portions of the Cities of El Cajon, La Mesa, Poway, San Diego, and Santee. The watershed also covers portions of the unincorporated areas of Alpine, Central Mountain, Crest/Dehesa, Harbison Canyon/Granite Hills, Julian, Lakeside/Pepper Drive-Bostonia, North Mountain, Ramona, Valle de Oro, and the Barona Indian Reservation. The watershed contains the San Diego River, Boulder Creek, El Capitan Reservoir, San Vicente Reservoir, Lake Jennings, Lake Cuyamaca, and Lake Murray. Much of the impounded water in the reservoirs is used to serve major population centers, within the County. The watershed is drained by the San Diego River which discharges into the Pacific Ocean between Mission Beach and Ocean Beach in the City of San Diego. Annual precipitation ranges from 10.5 inches near the coast to nearly 35 inches in the eastern portion of the watershed. Approximately 74 percent of the San Diego River WMA is located in the unincorporated area of the County. Land uses in the watershed include undeveloped land (48 percent), parks and recreation (22 percent), and residential (18 percent). Other uses include transportation (6 percent), agriculture (2 percent), commercial (2 percent) and industrial (2 percent). Approximately half of the watershed is privately owned land. The remaining portions are federally, State, or locally owned.

**San Diego Bay WMA**

The San Diego Bay WMA covers 282,580 acres and consists of three major watersheds: Pueblo San Diego, Sweetwater, and Otay.

**Pueblo San Diego Watershed**

The Pueblo San Diego Watershed covers nearly 36,000 acres. It is comprised of one HU (Pueblo) and three HAs including Point Loma, San Diego Mesa, and National City. Major water bodies in the watershed include Chollas Creek, Paleta Creek, and San Diego Bay. Rainfall for the watershed averages 10.5 inches in coastal areas and 13.5 inches in the eastern areas. The Pueblo San Diego Watershed is the most developed and most densely populated watershed in the San Diego Bay WMA. Land use in the watershed includes residential (40 percent), transportation (28 percent), parks (7 percent), public facilities (6 percent), commercial (5 percent), undeveloped land (5 percent), military (4 percent), industrial (3 percent), and commercial recreation (2 percent). Most of the watershed (84 percent) falls under the jurisdiction of the City of San Diego. Other jurisdictions include the Cities of La Mesa, Lemon Grove, and National City, the Port of San Diego, the U.S. Navy, and unincorporated land.

**Sweetwater Watershed**

The Sweetwater Watershed encompasses over 148,000 acres and includes one HU (Sweetwater) and three HAs including Lower Sweetwater, Middle Sweetwater, and Upper Sweetwater. Major water bodies include the Sweetwater River, Sweetwater Reservoir, Loveland Reservoir, and San Diego Bay. Rainfall in the watershed widely varies from 10.5 inches near the coast to approximately 35 inches in the far inland areas. Much of the Sweetwater Watershed is occupied by the undeveloped lands in the Cleveland National Forest, Cuyamaca Rancho State Park, and the unincorporated communities of Pine Valley, Descanso,

Alpine, and the Viejas Indian Reservation. The majority of land uses in the watershed include undeveloped land (36 percent), parks (25 percent), residential (25 percent), and transportation (6 percent). Other land uses are comprised of agriculture (2 percent), public facilities (1 percent), commercial recreation (1 percent), water (1 percent), commercial (1 percent), industrial (1 percent), and land under construction (1 percent). Land ownership is mostly private with the remaining areas controlled by local, State, federal governments, and Native American Indian Tribes. The upper watershed contains large undeveloped areas within the Cleveland National Forest and Cuyamaca Rancho State Park.

**Otay Watershed**

The Otay Watershed is nearly 98,500 acres in size and consists of the Otay HU and three HAs including Coronado, Otay Valley, and Dulzura. Major water bodies include the Upper and Lower Otay Reservoirs, Otay River, and San Diego Bay. The two major reservoirs in the watershed supply water, important wildlife habitat, and recreational opportunities. The Lower Otay Reservoir lies at the end of the San Diego Aqueduct. Annual rainfall varies from 8.3 inches at the coast to 19.5 inches in the inland areas. Over 69 percent of the Otay Watershed is located in the unincorporated area with the remaining portions located in the following jurisdictions: Port of San Diego and Cities of Chula Vista, Coronado, Imperial Beach, and San Diego. Land uses in the watershed include parks (38 percent), undeveloped land (32 percent), residential (14 percent), transportation (5 percent), industrial (3 percent), public facilities (2 percent), military (2 percent), agriculture (1 percent), commercial recreation (1 percent), water (1 percent), and commercial (1 percent). Land ownership is predominantly private with a small percentage of local, State, and federally owned lands. The Otay Watershed includes the San Diego National Wildlife Refuge, the Rancho Jamul Ecological Reserve, and approximately 23,000 acres that provide habitat for endangered plant and animal species as part of the Multiple Species Conservation Program (MSCP).

**Tijuana River WMA**

The Tijuana River WMA is the largest of the San Diego watersheds and covers over 1.1 million acres. The Tijuana River is formed by two drainage networks that merge in the City of Tijuana, then flow across the U.S./Mexico international border into the Tijuana River Estuary in Imperial Beach, and ultimately to the Pacific Ocean. The watershed is divided by the U.S./Mexico international border with just over 27 percent lying within the San Diego region. The watershed is comprised of the Tijuana HU and the following HAs: Tijuana Valley, Potrero, Barrett Lake, Monument, Morena, Cottonwood, Cameron, and Campo. Major water bodies in this WMA include the Tijuana River, Cottonwood Creek, and the Tijuana River Estuary. Annual precipitation varies from less than 10.5 inches near the coast to more than 22.5 inches in the inland areas. Mexico governs 73 percent of the Tijuana River WMA. The remaining areas fall within the jurisdiction of the U.S. Dominant land uses in the U.S. portion of the watershed are undeveloped/vacant areas (61 percent) and parks (26 percent). Other land uses include residential (7 percent), agriculture (3 percent) and transportation (3 percent). The combination of commercial, recreation, industrial, military, public facilities, land under construction, and water land uses equals less than two percent of the land area in the U.S. portion of the watershed. Mexico's land uses in the WMA are predominately undeveloped/vacant uses (82 percent). It should be noted that much of Mexico's land that is classified as undeveloped is used for low intensity cattle and goat grazing. The Tijuana River Watershed also includes the Tijuana River Estuary, which is a National Estuarine Sanctuary.

**Salton Sea Transboundary WMA**

The Salton Sea Transboundary WMA includes hydrologic units located in the Colorado Hydrologic Region (CHR). The Salton Sea Transboundary WMA contains parts of five hydrologic units located in the eastern desert portion of the County. These include the Anza-Borrego, Clark, Whitewater, West Salton, and Imperial Watersheds. The Anza-Borrego Watershed is the largest hydrologic unit, covering about 80 percent of the desert portion of San Diego County and extending into Imperial and Riverside Counties. Portions of the Clark, Whitewater, and West Salton Watersheds are located at the extreme northeast corner of the County. The Imperial Watershed is located at the southeast edge of San Diego County and extends into Imperial County. Water is limited in all of these areas. The surface water that intermittently exists flows toward the Salton Sea and the Colorado River. Average annual precipitation for this WMA ranges from less than three inches along the eastern boundary, near Imperial Valley, to 25 inches in the mountain divide between the Salton Sea and Pacific Ocean drainages. Runoff occurs from winter precipitation especially in the higher elevations and from summer thunderstorms. Approximately 98 percent of the land uses located within the San Diego County portion of the Salton Sea Transboundary WMA is parkland, undeveloped land, or used for agriculture. The remaining portions are sparsely populated with single-family residential units, and a small amount of other uses.

### *2.8.1.3 Stormwater Drainage Systems*

**Overview**

A stormwater conveyance system, as defined by the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance, means “private and public drainage facilities other than sanitary sewers within the unincorporated areas of San Diego County by which urban runoff may be conveyed to receiving waters, and includes, but is not limited to, roads, streets, constructed channels, aqueducts, storm drains, pipes, street gutters, inlets to storm drains or pipes, and catch basins.” The stormwater conveyance system is designed to prevent flooding by transporting water away from developed areas. A vast amount of the unincorporated area is rural land that does not support or require stormwater drainage facilities. In contrast, most urban areas within the incorporated areas of San Diego County have a range of stormwater drainage facilities.

Unfiltered and untreated stormwater can contain a number of pollutants that may eventually flow to surface waters. The chief cause of urban stormwater pollution is the discharge of inadequately treated waste or pollutants into the natural water system. Discharge may occur naturally or as a result of human activities. Over recent decades, rapid growth and urbanization have placed increased pressure on water resources and resulted in local impacts to water quality, especially in the densely developed western part of the County. In general, increased urbanization increases the amount of pollutants generated by human activities within a watershed, and increases the amount of impervious (paved) surfaces, thus reducing the amount of water that would normally infiltrate into the soil and be filtered naturally. Pollutants, such as fertilizers and pesticides, motor oil, antifreeze, sediment, heavy metals, bacteria, and viruses, that accumulate on impervious surfaces are easily picked up by rainfall runoff and flow downstream via the stormwater conveyance system to surface waters. The stormwater conveyance system is not connected with the sanitary sewer system; therefore, urban runoff is not filtered to remove trash, cleaned, or otherwise treated before it is discharged to surface

waters. The typical result is that pollutants are carried directly into surface water by runoff. Stormwater discharges that enter the natural receiving waters can be polluted by either point sources or non-point sources.

**Point Source Discharge**

Point source pollution refers to pollutants discharged to surface water through any discernable, confined, and discrete conveyance. In other words, the boundaries of the source of pollution can be easily defined and identified from a single point. Point sources generally discharge predictable concentrations and volumes of pollutants. Examples of point source pollution are sewage treatment plants, landfills, and industrial facilities, all of which may release effluent and sewage or other liquid waste directly into a body of water.

**Non-point Source Discharge**

Non-point source pollution refers to diffuse, widespread cumulative sources of pollution and is the primary source of surface water and groundwater contamination. In other words, non-point source pollution can not be traced back to a single point or source. This kind of pollution is caused by rainfall and over-irrigation that washes pollutants into storm drains, streams, rivers, lakes, and oceans. Sources may be large or small, but are generally numerous throughout a watershed. Non-point water pollution is often a by-product of poor land use practices, which do not incorporate adequate best management practices (BMPs), and the collective effects of individual behavior. Common sources of non-point pollution include, but are not limited to, runoff from urban, agricultural, or industrial areas, landscaping, roads, highways, improperly managed construction sites, septic systems failures, recreational boating, timber harvesting, mining, and livestock. Non-point source discharges can also result from physical changes to stream channels and habitat degradation. Typical nonpoint source contaminants include trash, sediments, pesticides, fertilizers, petroleum-based hydrocarbons, metals, and pathogens. Nonpoint sources of pollution can occur year round, during any time that rainfall, snowmelt, irrigation, or any other source of water runs over land, picks up pollutants and deposits them into surface or groundwater.

### *2.8.1.4 Water Quality*

This section defines common water quality contaminants and describes existing groundwater and surface water quality issues within the County's WMAs.

**Water Quality Contaminants**

**Metals**

Metals can impact surface water quality by accumulating in sediments and fish tissues. This poses risks of toxicity such as lowering the reproductive rates and life spans of aquatic animals and animals up the food chain. Metals can also alter photosynthesis in aquatic plants and form deposits in pipes. Metals in urban runoff can result from automobile use, industrial activities, water supply infrastructure corrosion, mining, or pesticide application. Atmospheric deposition can also contribute metals to water bodies. Groundwater can be contaminated from metals from improper disposal of waste generated from small businesses such as automobile repair shops

or metal parts cleaning operations. Once groundwater is contaminated with metals it can be extremely difficult, costly or impossible to remove them.

**Nutrients (Phosphorous and Nitrogen)**

High levels of nitrogen and phosphorus in surface waters can produce harmful algal blooms. In turn, these blooms can produce "dead zones" in water bodies where dissolved oxygen levels are so low that most aquatic life cannot survive. Typical sources of nutrients in surface waters are improper fertilizer usage (both agricultural and residential), discharges from failing or improperly maintained septic systems, and accidental sanitary sewer overflows. Nitrate, which is composed of nitrogen and oxygen, occurs naturally in soil and water. Nitrate is an important constituent in fertilizers used for agricultural purposes and is present in human and animal wastes. Typical sources of elevated nitrates in groundwater are failing septic tanks, feed lots, or farming operations. Infants, young livestock, and pets are extremely susceptible to potential health effects from drinking water with nitrates above regulated levels and could become seriously ill. If untreated, the condition can be fatal.

**Petroleum Products (Gasoline, Diesel, Oil and Grease)**

Gasoline, diesel, oil, and grease are characterized as high molecular weight organic compounds. Primary sources of gasoline, diesel, oil and grease contaminants are motor products from leaking vehicles and underground storage facilities and tanks. Petroleum hydrocarbon products commonly found in gasoline, including benzene, toluene, ethylbenzene, xylene, and MBTE, are considered common petroleum contaminants to surface water and groundwater. Benzene is used as a gasoline additive, industrial solvent and in the production of drugs, plastics, rubber and dyes. Toluene is widely used as an industrial feedstock and as a solvent. Ethylbenzene is used in the production of plastic while xylene is used as a solvent in the printing, rubber and leather industries. MBTE is a gasoline additive that has historically caused groundwater contamination from spills or leaks at gas stations. Introduction of petroleum pollutants to water bodies is typical due to the widespread use and application of these products in municipal, residential, commercial, industrial, and construction areas. Over 2,000 leaking underground fuel tanks (LUFT), typically storing petroleum products, exist throughout the County. Petroleum products are common contaminants in County groundwater.

Additional sources of oil and grease include esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to water bodies is typical due to the widespread use and application of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of a water body, as well as its water quality.

**Pathogens (Bacteria and Viruses)**

Water contaminated with pathogens such as bacteria and viruses can introduce diseases to humans and animals. This can have significant public health implications, particularly related to water used for drinking and recreational uses such as swimming, surfing, and shellfish harvesting. Common sources of pathogens in surface water include wild and domesticated animals, urban and agricultural activities, and accidental sanitary sewer overflows. Elevated bacteria in groundwater occur primarily from human and animal wastes. Sources of bacteriological contamination include septic tanks, natural soil/plant bacteria, feed lots, pastures, and other land areas where animal wastes are deposited. Old wells with large

openings, including hand dug wells and wells with inadequate seals, are most susceptible to bacteriological contamination from insects, rodents, or animals entering the well.

### Pesticides and Herbicides

Pesticides and herbicides can enter surface water and groundwater from both agricultural and urban areas. Typical impacts include accumulation in sediments and bioaccumulation in the food chain. Pesticides and herbicides can be toxic to both aquatic life and humans.

### Radioactive Elements

Naturally occurring radioactive elements are present to some extent in nearly all rocks and soil throughout the world and leach into groundwater from natural mineral deposits. Radioactivity in groundwater is not a new phenomenon, having been present in some form since the earth was formed. Elevated levels of naturally occurring radioactive elements including uranium have been detected in groundwater in various areas throughout San Diego County. Several community water systems have had ongoing problems with radioactive elements and have relatively expensive treatment systems to reduce levels of various contaminants to levels below regulatory limits. Potential health effects of various radioactive elements include an increased risk of various cancers and kidney toxicity. Figure 2.8-6 identifies areas within the unincorporated County that have elevated levels of radiochemicals.

### Sediments

Increased sedimentation, over and above the amount that enters the water system by natural erosion, can cause many adverse impacts on aquatic organisms, water supply, and wetlands. Sedimentation can decrease transmission of light, which affects plant production and leads to loss of food and cover for aquatic organisms. It can change behavioral activities (nesting, feeding, mating), and adversely affect respiration, digestion, and reproduction. Contaminants and toxic substances can also be transported in sediments. Sediments can damage water treatment equipment, increasing treatment costs. They can reduce reservoir volume and flood storage and increase peak discharges.

### Total Dissolved Solids

Total dissolved solids (TDS) refer to the total concentration of all minerals, salts, metals, cations or anions that are dissolved in water. TDS is composed of inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonate, carbonate, chloride and sulfate), and some small amounts of organic matter that are dissolved in water. The primary source of TDS in groundwater is the natural dissolution of rocks and minerals, but septic tanks, agricultural runoff, and stormwater runoff also contribute. Increased salts in regional freshwater resources from mining, urban runoff, and construction can create stressful environments and even destroy habitat and food sources for wetland animals in aquatic and wetland habitats, as well as favoring salt tolerant species; reduce the quality of drinking water; and may cause skin or eye irritations in people. In deep desert basins like those found underlying Borrego Valley, groundwater in the deeper portions of the basin typically contains older water than the shallower zones. This older water may contain high concentrations of salt and other dissolved minerals making it unsuitable for human consumption. Pumping shallow wells may draw deeper poor quality water into the wells. An elevated TDS concentration is not a health hazard; however, it

can cause the water to have a salty or brackish taste, it can cause the water to be corrosive, and results in scale formation on pipes, pumps, water heaters, etc. Because of the seasonal nature of precipitation within the San Diego region, surfacing groundwater and runoff from applied water (agricultural and urban) represent the primary contributors to dry season stream flows. The interchange between surface water and groundwater, and the extreme seasonal variability of flow, evaporation, and water quality in San Diego County all contribute to a wide range of TDS in our surface waters. It is also of note that much of the water that is imported to the San Diego region is relatively high in TDS content.

## Surface Water Quality

The following discussion identifies surface water quality issues facing WMAs within the unincorporated County. Additional information, including beneficial uses, water quality objectives, implementation strategies, plans and policies, and surveillance, monitoring and assessment information, for each WMA discussed below can be found by accessing the San Diego Basin Water Quality Control Plan (Basin Plan) or the Basin Plan for the Colorado River Basin Region, available at the State Water Resources Control Board (SWRCB) website: http://www.swrcb.ca.gov/.

In addition to the watershed-specific Total Maximum Daily Load (TMDL) programs listed below, the San Diego Regional Water Quality Control Board (SDRWQCB) has adopted a Basin Plan amendment for Project I – Beaches and Creeks in the San Diego Region, which is explained further below. The purpose of a TMDL is to attain water quality objectives and restore and protect the beneficial uses of an impaired water body. Project I – Beaches and Creeks is a TMDL addressing indicator bacteria in 12 impaired watersheds in the San Diego region, seven of which are in San Diego County. Watersheds included in Project I and located in San Diego County include San Luis Rey River (San Luis Rey River WMA), San Marcos (Carlsbad WMA), San Dieguito River (San Dieguito River WMA), Miramar (Los Penasquitos Creek WMA), Scripps (Los Penasquitos Creek WMA), San Diego River (San Diego River WMA), and Chollas Creek (San Diego Bay WMA). Information regarding TMDLs was obtained from the SDRWQCB.

### San Juan WMA

Water quality concerns for this WMA include surface and groundwater quality degradation, habitat loss, channel bed erosion, and invasive species. Constituents of concern that have been identified include coliform bacteria, nutrients, TDS, solvents, trace metals, and petroleum. Six water bodies located within the San Juan WMA have been identified as having elevated coliform bacteria levels and are listed on the Clean Water Act (CWA 303(d)) List of Impaired Water Bodies. Table 2.8-1 identifies the water bodies included on this list and located within the San Juan WMA.

### Santa Margarita River WMA

Major impacts affecting this watershed include surface water and groundwater quality degradation, habitat loss, invasive species, and channel bed erosion. There are eight water bodies in the Santa Margarita River WMA that have been placed on the CWA 303(d) list (see Table 2.8-1) from pollutant/stressors including: eutrophic conditions (from sedimentation), nutrients, TDS, iron, manganese, phosphorous, nitrogen, phosphorous and sulfate. The upper portion of the watershed in Riverside County has been under continuous development and potential sources of contaminants include urban runoff, agriculture/nurseries, septic tanks,

natural sources, and unknown point and non-point sources. Santa Margarita Lagoon is also identified in the SDRWQCB Investigation Order and Technical Report for Lagoons Total Maximum Daily Load (TMDL) Project - Order No. R9-2006-0076, which establishes monitoring requirements for dischargers. This order required monitoring to begin during the 2007-2008 wet weather monitoring season. A basin plan amendment was approved for Rainbow Creek in 2005 that established a TMDL program to address water quality impairment due to nitrogen and phosphorous. Additionally, the Santa Margarita River Watershed Management Plan (WMP) includes sedimentation as a high priority water quality program in the San Diego County portion of the WMP (Anchor 2005). The WMP included actions and identified responsible parties to implement the actions to minimize sedimentation.

**San Luis Rey WMA**

Major impacts to the San Luis Rey River WMA include surface water quality degradation, habitat loss, invasive species, and channel bed erosion. Three water bodies in the San Luis Rey WMA have been placed on the CWA 303(d) list (see Table 2.8-1). Constituents of concern for the WMA include bacterial indicators along the Pacific Coast Shoreline at the San Luis Rey River mouth, eutrophic conditions within Guajome Lake, and chloride and total dissolved solids in the lower portion of the San Luis Rey River. Potential sources of these contaminants are varied and include both anthropogenic and natural sources. A basin plan amendment that would establish a TMDL for bacteria in this watershed has been approved by the SDRWQCB and is pending final approval from the SWRCB.

**Carlsbad WMA**

Major impacts to the watershed include surface water quality degradation, sewage spills, beach closures, sedimentation, habitat degradation and loss, invasive species, and eutrophication. Eight water bodies in the Carlsbad WMA have been placed on the CWA 303(d) list (see Table 2.8-1). Pollutant conditions in the WMA include bacterial indicators, eutrophic conditions, nutrients, sediments, sulfates, nitrates and phosphates. Four of the five lagoons within the Carlsbad WMA (Loma Alta Slough, Buena Vista Lagoon, Agua Hedionda Lagoon, and San Elijo Lagoon) are on the CWA 303(d) list. Each impaired lagoon is also identified in the SDRWQCB Investigation Order and Technical Report for Lagoons TMDL Project - Order No. R9-2006-0076, which establishes monitoring requirements for dischargers. This order required monitoring to begin during the 2007-2008 wet weather monitoring season. The sources of these pollutants are varied and include urban runoff, agricultural runoff, sewage spills, livestock/domestic animals, and other natural sources.

**San Dieguito River WMA**

Major impacts affecting the San Dieguito River WMA include surface water quality degradation, beach closures, sedimentation, habitat degradation and loss, invasive species, and eutrophication. Seven water bodies within this watershed have been placed on the CWA 303(d) list (see Table 2.8-1). Pollutants of concern for the WMA include bacterial indicators, sulfates, nitrogen, phosphorus, and TDS. Land use activities, including urban runoff, agricultural runoff, and domestic animals, as well as other natural sources, are the primary sources of water quality impacts in the area. A basin plan amendment that would establish a TMDL for bacteria in this watershed has been approved by the SDRWQCB and is pending final approval from the SWRCB.

### Los Penasquitos Creek WMA

Major impacts to the Los Penasquitos Creek watershed include surface water quality degradation, beach closures, sedimentation, habitat degradation and loss, invasive species, and eutrophication. Table 2.8-1 presents two water bodies in this WMA that have been placed on the CWA 303(d) list. Constituents of concern that have led to these water bodies being placed on the CWA 303(d) list are sedimentation/siltation, phosphate, and TDS. Urban runoff, sewage spills, dredging, landfill leachate, and natural sources are factors that may be impairing water quality within the Los Penasquitos WMA. The Los Penasquitos Lagoon is also identified in the SDRWQCB Investigation Order and Technical Report for Lagoons TMDL Project - Order No. R9-2006-0076, which establishes monitoring requirements for dischargers. A basin plan amendment that would establish a TMDL for bacteria in this watershed has been approved by the SDRWQCB and is pending final approval from the SWRCB.

### San Diego River WMA

Major impacts to the San Diego River WMA include surface water quality degradation, habitat degradation and loss, sediment, invasive species, eutrophication, and flooding. Table 2.8-1 presents the seven water bodies in the San Diego River WMA that have been placed on the CWA 303(d) list. Constituents that resulted in water bodies being placed on the CWA 303(d) list include bacterial indicators, TDS, phosphorus, eutrophication, pH, dissolved oxygen, color, chloride, manganese, and sulfates. Factors that may be impairing water quality in the WMA include urban runoff, agricultural runoff, mining operations, sewage spills, sand mining, and other natural sources. Famosa Slough in the City of San Diego has also been identified in the new SDRWQCB Investigation Order and Technical Report for Lagoons TMDL Project - Order No. R9-2006-0076, which establishes monitoring requirements for dischargers. A basin plan amendment that would establish a TMDL for bacteria in this watershed has been approved by the SDRWQCB and is pending final approval from the SWRCB.

### San Diego Bay WMA

The San Diego Bay WMA, contains the Pueblo San Diego Watershed, the Sweetwater River Watershed and the Otay River Watershed. There are 25 water bodies within the San Diego Bay WMA that are listed on the CWA 303(d) list (see Table 2.8-1). Pollutants of concern include trace metals, other toxic substances, coliform bacteria, pesticides, and nutrients. Sewer overflows, stormwater runoff, and habitat degradation are all factors that may be impairing water quality within the San Diego Bay WMA. A basin plan amendment was approved for Chollas Creek in 2002 that established a TMDL to address water quality impairment due to the pesticide diazinon. An additional basin plan amendment was approved for Chollas Creek in 2005 that established a TMDL to address water quality impairment due to dissolved copper, lead, and zinc. A TMDL for the Shelter Island Yacht Basin was established in 2005 to address water quality impairment due to dissolved copper. A TMDL for the Shelter Island Shoreline Park was established in 2008 to address water quality impairment due to fecal bacteria. Additionally, two separate TMDLs for Chollas Creek and Seventh Street Channel are in the planning stages to address benthic community degradation and sediment toxicity.

### Tijuana River WMA

Major impacts to the watershed include surface water quality degradation, trash, sedimentation, eutrophication, habitat degradation and loss, flooding, erosion, and invasive species. The

Tijuana River Watershed has a variety of water quality issues, many of which stem from runoff that enters the watershed from Mexico, and is outside of the County's jurisdiction. Six water bodies within the Tijuana River WMA have been placed on the CWA 303(d) list (see Table 2.8-1). Constituents of concern in the watershed include bacterial indicators, color, eutrophic conditions, lead, low dissolved oxygen, manganese, nickel, pesticides, pH, phosphorus, solids, synthetic organics, thallium, trace elements, and trash. The sources of the pollutants are varied and include urban runoff, sewage spills, industrial discharges, agricultural/orchards, livestock/domestic animals, natural sources, and septic systems.

### Salton Sea Transboundary WMA

Constituents of concern to the Salton Sea Transboundary WMA include high concentrations of salt, TDS and elevated levels of selenium. Replenishment of the watershed is predominantly from farm drainage and seepage and occasional storm runoff from the Coachella Valley, Imperial Valley, Anza-Borrego, and the Mexicali Valley in Mexico. No Salton Sea Transboundary WMA waterbodies located within San Diego County are listed on the CWA 303(d) list.

## Groundwater Quality

Traditionally, groundwater supplies within the County have produced high-quality drinking water. However, naturally occurring and more recently anthropogenic sources of contamination have caused the quality of groundwater to be adversely effected in localized areas. The most common anthropogenic sources of groundwater contamination include LUFTs, sewer and septic systems, agricultural applications, and facilities producing animal wastes. The most common contaminants in groundwater within San Diego County include elevated nitrate, naturally occurring radionuclides, TDS, bacteria, and petroleum products. Other groundwater contaminants of concern, which may occur in localized areas, include herbicides, pesticides and other complex organics, and metals. The following section describes areas within the unincorporated County that have been identified by the County General Plan Update Groundwater Study (DPLU 2009f) as experiencing groundwater contamination. Additionally, the groundwater quality of Borrego Valley is individually discussed below.

The County Department of Environmental Health (DEH) has compiled a map of the unincorporated County which depicts nitrate and radionuclide groundwater quality problem areas in the County (Figure 2.8-6). Problem areas mapped are based on a subset of wells in which nitrate and radionuclides (gross alpha and uranium) have exceeded their respective maximum contaminant levels (MCLs) in groundwater samples analyzed. Other areas of groundwater quality concern, such as LUFT sites and parcels smaller than four acres, are also depicted in Figure 2.8-6. The map is based on a limited set of analytical data from water systems regulated by DEH and the State.

### Nitrates

Potable water, whether from local or imported supplies, does not contain significant amounts of nitrates. Nitrate impacts in the County are most common from small lots and/or areas of shallow groundwater on septic systems, excess nitrate used in agricultural applications, and feed lots. As depicted on Figure 2.8-6, nitrate impacts are most common in the more urbanized areas of the unincorporated County within the SDCWA service area. This includes portions of the unincorporated communities of Rainbow, Valley Center, Ramona, Crest, and Jamul. The

nitrate impacts can largely be attributed to agricultural uses and/or imported water being brought into these basins causing septic system failures. The imported water, which allows for dense development, results in artificial recharge through septic systems along with irrigation return flows, which cause shallow groundwater conditions and septic system failures. Additional mapped nitrate problem areas within the unincorporated County include areas of the Mountain Empire Subregion, including Morena Village and the Cameron Corners area of Campo, and a small portion of the Alpine CPA along I-8. There are no data available over a vast portion of the unincorporated County; therefore, there are likely additional areas with nitrate problems that are unmapped.

**Naturally Occurring Radionuclides**

Naturally occurring radionuclides are present to some extent in nearly all rocks and soil throughout the world and leach into groundwater from natural mineral deposits. As shown in Figure 2.8-6, existing radiochemical problem areas include portions of the Campo, Lake Morena and Potrero areas in the Mountain Empire Subregion, Jamul/Dulzura Subregion, Guatay (Central Mountain Subregion), Julian CPA, Cuyamaca (Central Mountain Subregion), the Lake Wohlford area (Valley Center CPA), SR-78 area east of the Ramona CPA, Warner Springs (Desert Subregion), and SR-79 area near the Riverside County border. There are no data available over a vast portion of the County; therefore, there are likely additional areas with potential radionuclide problems that are unmapped.

**TDS**

TDS originate naturally from the dissolution of rocks and minerals, and also can enter groundwater from septic systems, agricultural runoff, and storm water runoff. The most common groundwater areas with elevated concentrations of TDS in the County include coastal sedimentary formations and deeper water found in desert basins.

**Coliform Bacteria**

Elevated bacteria levels in groundwater occur primarily from human and animal wastes. Old wells with large openings and wells with inadequate seals are most susceptible to bacteriological contamination from insects, rodents, or animals entering the well.

**Petroleum Products**

Petroleum products enter groundwater primarily from leaking vehicles and widespread use and application in municipal, residential, commercial, industrial, and construction areas. Areas of potential localized contamination of groundwater from LUFTs include sites in the Cameron Corners area of Campo (Mountain Empire Subregion), Julian CPA, Guatay (Central Mountain Subregion), Pine Valley (Central Mountain Subregion), Santa Ysabel (Julian CPA), and several other areas. In a few cases, water supply wells were inactivated due to the possibility of inducing flow of contaminated groundwater from the leaking underground storage tanks. Figure 2.8-6 identifies areas within the unincorporated County with groundwater quality impacted by LUFT sites.

**Borrego Valley**

In general, water quality has historically been good within the Borrego Valley Aquifer, as reported by Borrego Water District. Wells from the aquifer show total dissolved solids at concentrations of less than 500 mg/L; however, historical nitrate impacts have been noted from wells taken out of production. High salinity and poor quality water is thought to occur in deeper formational materials of the Borrego Valley Aquifer as well as shallow groundwater in the vicinity of the Borrego Sink in the southern portion of Borrego Valley. Since there have been no comprehensive studies of water quality within Borrego Valley, it is difficult to assess the amount of potable groundwater still available in this area. Although not confirmed, it is plausible that water quality impacts occur as decreased water levels induce flow of poor quality water found in deeper formational materials of the aquifer. This condition would eventually necessitate additional treatment of groundwater to make the water suitable as a drinking water supply, at a sizeable cost.

### *2.8.1.5 Flooding and Dam Inundation*

**Overview**

Flooding is a general or temporary condition of partial or complete inundation of normally dry land areas near water. Flooding is commonly associated with the overflow of natural rivers or streams, but can also occur near stormwater diversion facilities, dams, or in low-lying areas not designed to carry water.

In previous years, major storms have produced floods that caused significant property losses and resulted in extensive damage to public infrastructure throughout San Diego County. For example, the storms that occurred between December 27, 2004 and January 11, 2005 caused approximately $7.7 million in damages Countywide. In addition to major storm events, flood risks also occur during periods of heavy rainfall in areas where land has been converted from pervious to impervious surfaces or where vegetation has been reduced, such as after a wildfire. In both cases, the land loses its ability to absorb rainfall and more stormwater enters stream beds, river beds and reservoirs. The Hydrology Division of the County of San Diego Flood Control District (FCD) is responsible for maintaining an historical database containing data from over 100 rain gauges. An inventory of historic flooding occurrences for the past 10 years and the associated damages can be found in Table 2.8-2. As this table indicates, since 1993, flash floods have resulted in over $16 billion in property damage throughout San Diego County.

Average precipitation across San Diego County is highly variable. The western coastal and foothills region of the County averages between 6 to 18 inches per year, with increasing amounts in the foothills. The central mountainous region averages between 15 to 35 inches per year. This higher rainfall is attributable to the orographic effect created by the higher elevations of the mountains, which raises and cools the moist marine air as it moves inland from the ocean over the mountains. The highest precipitation in the County occurs on Palomar Mountain and Cuyamaca Peak, with precipitation in the wettest years exceeding 70 inches. In contrast, rainfall diminishes rapidly with decreasing elevation on the eastern slopes of the mountains and into the deserts. Desert areas have reported rainfall less than one inch in extremely dry years.

## Precipitation Induced Flooding

### Flash Floods and Debris Flows

Debris flows, also known as mudflows, are shallow water-saturated landslides that travel rapidly down slopes carrying rocks, brush, and other debris. Mudflows are a relatively common disaster in San Diego. A mudflow occurs naturally as a result of heavy rainfall on a slope that contains loose soil or debris. Human activity can also induce a slide, such as when soil becomes saturated from a broken water pipe or incorrect diversion of runoff concentrated from developed areas saturates soil.

Mudflows predominantly occur in mountainous areas underlain by geologic formations that produce sandy soils. Weathered gabbroic soils contain large amounts of clay that shrinks and expands with exposure to water, and also have a high potential for instability and sliding. Mudflows can be initiated on slopes as low as 15 degrees, but are more frequently found on slopes as steep as 45 degrees. The path of a mudflow is determined by local topography, and will typically follow existing drainage patterns. The fluidity and depth of the water/soil/debris mixture and the steepness of a channel are all variables that influence the rate of movement of a mudflow. At the foot of a long steep slope, a flow may move at avalanche speed (approximately 40 feet per second or 27 miles per hour) and contains tremendous force capable of destroying buildings and roadways.

Areas recently burned by wildfires are particularly susceptible to flash floods and debris flows during rainstorms. Just a short period of moderate rainfall on a burn scar can lead to flash floods and debris flows. Rainfall that is normally absorbed or intercepted by vegetation can run off almost instantly, causing creeks and drainage areas to flood much sooner during a storm, and with more water, than normal. Additionally, the soils in a burn scar are highly erodible so flood waters can contain high amounts of mud, boulders, and vegetation. The powerful force of rushing water, soil, and rock, both within the burned area and downstream, can destroy culverts, bridges, roadways, and structures, and can place people at risk.

### Alluvial Fan Floods

Alluvial fans are a desert phenomenon where streams emerge from canyons and deposit sand and rock in a cone-shaped formation fanning out from the canyon mouth. Alluvial fans form in arid and semi-arid environments where steep mountain fronts meet flatter valley floors. The infrequent but intense storms in these environments produce flash floods that can carry heavy debris and sediment loads. The swiftly flowing streams and washes of steep canyons can transport more debris than slowly moving streams on the gentle valley slopes. When fast moving debris-laden flows reach the mouth of the canyon and spread out across the land, the energy is dissipated over a wider area and they lose the capacity to carry the debris. The flows then deposit large amounts of debris along the mountain front. Over the centuries this buildup of debris spreads out from the canyon mouth to form the classic conical shape of the alluvial fan. In San Diego County alluvial fans occur mostly in the desert. As development expands in the desert, more projects are built on the alluvial fans and are subject to sheet flow flooding.

## Non-Precipitation Induced Flooding

### Urbanization

The conversion of undeveloped, natural areas to urbanized uses throughout San Diego's watersheds have contributed to increased potential for flooding, by increasing the rate and amount of runoff in a watershed and altering drainage patterns. Construction of impervious surfaces such as rooftops, roads and driveways reduces the amount of rainfall that can infiltrate the ground surface and move to the subsurface. As a result, the volume of surface water runoff increases within a watershed; subsequently, artificial conveyances such as gutters, storm pipes and natural channel improvements to accommodate additional volume accelerate the rate of flow of water in the watershed. This faster moving, higher volume of surface water runoff within a watershed results in a higher probability and increased severity of flooding within a watershed, if facilities are not adequately maintained or constructed to carry peak flow capacity.

### Landform Modification

Any alteration to natural drainage patterns by modifying landforms that control the conveyance of surface water can increase the potential for flooding. Grading or other modifications, including directly altering the course of a stream or river by excavation or embankment, can increase velocities of floodwaters, which increases the potential for flooding downstream of the modification. A reduction in the capacity of the watercourse can increase the potential for flooding at the site of the modification as well as upstream from the activity.

### Faulty Drainage Facilities

Drainage facilities including storm drains, culverts, inlets, channels or other such structures are designed to prevent flooding by collecting stormwater runoff and directing flows to either the natural drainage course and/or away from urban development. The capacity of a drainage structure can typically be adequately determined by a hydrology and drainage study; however if drainage facilities are not adequately designed or built, or properly maintained, the facilities can overflow or fail, resulting in flooding.

### Dam Failure

Dam failure inundation is flooding caused by the release of impounded water from structural failure or overtopping of a dam. The failure of a dam occurs most commonly as a result of extreme rainfall, poor design, neglect, or structural damage caused by earthquakes. This event is extremely hazardous, as it will typically occur quickly and without warning. Areas directly below the dam are at the greatest risk, and as the water moves farther downstream and reduces in velocity and depth, the magnitude of the damage and potential risk to life and property decreases.

The San Diego Multi-Jurisdictional Hazard Mitigation Plan (URS 2004) identifies dam failure risk levels based on dam inundation map data. A dam is considered a high hazard if it stores more than 1,000 AF of water, is higher than 150 feet tall, and has the potential for downstream property damage and/or downstream evacuation. Ratings are set by the Federal Emergency Management Agency (FEMA) and confirmed with site visits by engineers. Dam inundation areas affecting the unincorporated County are listed in Table 2.8-4. Generally, open space, agriculture, or other low occupancy uses are located within these areas, although there are

exceptions. Figure 2.8-7 identifies dam locations, dam inundation areas and dam hazard ratings for San Diego County. According to the Multi-Jurisdictional Hazard Mitigation Plan, an estimated total of 38,004 people in urban unincorporated areas and 3,420 people in rural unincorporated areas would be potentially exposed to flood hazards related to dam failure.

### Tsunamis

Tsunamis are long-wavelength, long-period sea waves generated by an abrupt movement of large volumes of water. These waves can be caused by underwater earthquakes, landslides, volcanic eruptions, meteoric impacts, or onshore slope failures. In San Diego, wave heights and run-up elevations from tsunami have historically fallen within the normal range of tides. Table 2.8-3 gives the years and heights of the largest tsunami effects in San Diego. At the most risk for tsunamis is the coast of San Diego, all of which is incorporated or Federal land (Camp Pendleton). The historic record and the location of unincorporated lands away from the coastline indicate that no projects within the unincorporated County have probable potential to be inundated by a tsunami.

### Seiches

A seiche is a standing wave in a completely or partially enclosed body of water. Areas located along the shoreline of a lake or reservoir are susceptible to inundation by a seiche. High winds, seismic activity, or changes in atmospheric pressure are typical causes of seiches. The size of a seiche and the affected inundation area is dependant on different factors including size and depth of the water body, elevation, source, and if human made, the structural condition of the body of water in which the seiche occurs.

In San Diego's semi-arid climate, naturally occurring enclosed water bodies are not common. Instead most enclosed water bodies are reservoirs built by local municipalities and water districts to provide water service to local residents and businesses. Typically, all land around the reservoirs' shorelines are in public holdings, such as the City of San Diego or Helix Water District, which restrict private land development and minimize risk of inundation from seiches. Moreover, the public land holdings are not within the jurisdiction of the unincorporated County.

## Flood Prone Areas

The potential for flooding in the County of San Diego is high. The climate is semi-arid and the seasonal precipitation is highly variable in frequency, magnitude and location. Infrequent large bursts of rain can rush down steep canyons and flood areas unexpectedly. Flooding in San Diego and the rest of southern California most frequently occurs during winter storm events between the months of November and April, and occasionally during the summer when a tropical storm makes landfall in the region. Most flooding events occur over several days, but can also develop within a matter of hours, particularly in narrow valleys, or in desert alluvial fans that are prone to sheet flow.

Nearly every CPA or Subregion in the unincorporated County contains areas that are subject to flood inundation. As shown in Table 2.8-5, most communities in the unincorporated areas have between 100 to 4,700 acres of land identified as a floodplain. The exception is Borrego Springs in the Desert Subregion, which has more than 30,000 acres of land in its alluvial floodplain. The increased area of the floodplain can be attributed to flash flooding that occurs in desert areas.

According to San Diego's Multi-Jurisdictional Hazard Mitigation Plan (URS 2004), an estimated 19,807 people in unincorporated urban areas and 1,339 people in the unincorporated rural areas would have the potential to be exposed to flood hazards associated with the 100-year floodplain.

**Flood Mapping**

The Federal Insurance Rate Map (FIRM) is the official map created and distributed by the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP) that delineates the Special Flood Hazard Areas (SFHAs), those areas subject to inundation by the base flood, for every county and community that participates in the NFIP. FIRMs contain flood risk information based on historic, meteorological, hydrologic, and hydraulic data, as well as open-space conditions, flood control works, and development. It should be noted that alluvial fans are designated as SFHAs on FIRMs. Figure 2.8-8 shows FEMA floodway and floodplain areas for the unincorporated County of San Diego. In addition to the FEMA FIRMs, the County of San Diego has developed its own flood maps that account for additional areas of known risk. The County flood maps delineate 1 percent annual chance (100-year) riverine flood boundaries and elevations for areas not studied by FEMA. The County Mapping Program has floodplain-mapped 148.7 miles of rivers and streams in the unincorporated area.

## 2.8.2 Regulatory Framework

### *2.8.2.1 Federal*

**Clean Water Act (CWA)**

The 1972 CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the U.S. The CWA also directs states to establish water quality standards for all waters of the U.S. and to review and update such standards on a triennial basis. The U.S. Environmental Protection Agency (EPA) has delegated responsibility for implementation of portions of the CWA in California to the SWRCB and the regional water quality control boards (RWQCBs). This includes water quality control planning and control programs such as the National Pollutant Discharge Elimination System (NPDES), which seeks to control water pollution through the issuance of permits regulating the discharge of pollutants into waters of the U.S. Section 303 of the CWA requires states to adopt water quality standards for all intrastate waters of the U.S.

**National Flood Insurance Act**

The National Flood Insurance Act of 1968 established the National Flood Insurance Program (NFIP) in order to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The Act also required the identification of all floodplain areas within the U.S. and the establishment of flood-risk zones within those areas. The Federal Emergency Management Agency (FEMA) is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing Federal Insurance Rate Maps (FIRM) that delineate the areas of known special flood hazards and their risk applicable to the community.

**National Flood Insurance Reform Act**

The National Flood Insurance Reform Act of 1994 resulted in major changes in the NFIP. The Act, which amended the Flood Disaster Protection Act of 1973, provided tools to make NFIP more effective in achieving its goals of reducing the risk of flood damage to properties and reducing federal expenditures for uninsured properties that are damaged by flood. The Act required mitigation insurance and established a grant program for state and community flood mitigation planning projects.

### *2.8.2.2 State*

**Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act, enacted in 1969, authorizes the SWRCB to adopt, review, and revise policies for all waters of the state (including both surface and ground waters) and directs the RWQCBs to develop region-specific Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The purpose of these plans is to designate beneficial uses of the region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

**Cobey-Alquist Floodplain Management Act of 1965**

Under this Act, local governments are encouraged to plan, adopt and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. This Act also identifies requirements that jurisdictions must meet in order to receive state financial assistance for flood control. The County has used the guidelines established by this legislation to produce ordinances, such as the Flood Damage Prevention Ordinance, which promotes public health, safety, and general welfare, and minimizes public and private losses due to flood conditions in specific areas throughout the County. Furthermore, the Act has influenced the direction of Board of Supervisors (BOS) policy decisions, such as defining watercourses in the County of San Diego subject to flood control.

**National Pollution Discharge Elimination System (NPDES) Permits**

In California, the SWRCB and its RWQCBs administer the NPDES permit program. The NPDES permit system was established in the CWA to regulate both point source discharges and nonpoint source discharges to surface waters of the U.S. The NPDES program consists of characterizing receiving water quality, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive stormwater management program. Construction and industrial activities are typically regulated under statewide general permits that are issued by the SWRCB. The RWQCB also issues Waste Discharge Requirements that serve as NPDES permits under the authority delegated to the RWQCBs, under the CWA. In November 1990, under Phase I of the urban runoff management strategy, the EPA published NPDES permit application requirements for municipal, industrial, and construction stormwater discharges. With regard to municipalities, the permit application requirements were directed at jurisdictions owning or operating municipal separate storm sewer systems (MS4s) serving populations of 100,000 or more, or contributing significant pollutants to waters of the U.S. Such municipalities were required to obtain coverage under a NPDES municipal stormwater permit as

well as to develop and implement an urban runoff management program to reduce pollutants in urban runoff and stormwater discharges.

**California Groundwater Rights**

California created a system of appropriating surface water rights through a permitting process in 1913, but groundwater has never had any statewide regulation. Though the regulation of groundwater has been considered on several occasions since 1913, the California Legislature has repeatedly determined that groundwater management should remain a local responsibility. The right to use groundwater in California has evolved through a series of court decisions dating back to the late 1800s. Groundwater rights are usufructuary, meaning the right is not one of absolute ownership, but of the opportunity of use on the overlying land. This use must be reasonable and beneficial.

In 1903, a court ruling established that for landowners overlying an aquifer, each property had a correlative or co-equal right to a just and fair proportion of the resource. These correlative rights only require that all property owners share equally in the resource until it is exhausted, irrespective of the consequences. When the consequences of over-pumping are severe, groundwater users can ask the court to adjudicate, or define, the rights that overlying users have to groundwater resources. To date, there are 19 adjudicated basins in California, mostly in southern California. Eighteen of the adjudications were undertaken in the State Superior Court and one in Federal Court. For each adjudication case, the court appoints a Watermaster to oversee the court judgment. In 15 of these basins, the court judgment limits the amount of groundwater that can be extracted by all parties based on a court determined safe yield of the basin. The Santa Margarita Basin, which is partially located in San Diego County, was adjudicated in Federal Court and requires that water users report the amount of surface and groundwater they use, but groundwater extraction is not restricted.

**California Water Code**

In the California Water Code there are 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a Water Replenishment District (Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, while a Water Conservation District (Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the Legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and even control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment.

**Assembly Bill 3030 - Groundwater Management Act**

In 1992, AB 3030 was passed which greatly increased the number of local agencies authorized to develop a groundwater management plan and set forth a common framework for management by local agencies throughout California. These agencies could possess the same authority as a water replenishment district to “fix and collect fees and assessments for

groundwater management" (Water Code Section 10754), provided they receive a majority of votes in favor of the proposal in a local election (Water Code Section 10754.3).

### *2.8.2.3 Regional/Local*

**San Diego Basin Plan**

The Basin Plan for the San Diego Basin, most recently amended in 2007, sets forth water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. Specifically, the Basin Plan is designed to accomplish the following: 1) designate beneficial uses for surface and ground waters; 2) set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy; 3) describe mitigation measures to protect the beneficial uses of all waters within the region; and 4) describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Basin Plan incorporates by reference all applicable SWRCB and RWQCB plans and policies.

**Colorado River Basin Plan**

Similar to the San Diego Region Basin Plan, the Colorado River Basin Plan (adopted in 2006) sets forth water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. Specifically, the Colorado River Basin Plan lists and defines the various beneficial water uses of water bodies within its boundaries, describes the water quality which must be maintained to support such uses, describes programs, projects and other actions which are necessary to achieve the standards established in the plan and summarizes the various plans and policies which protect water quality.

**San Diego County BOS Policy I-45, Definition of Watercourses in the Subject of Flood Control**

The purpose of this policy is to define those watercourses in County of San Diego that are subject to flood control so that appropriate responsibility can be determined. The policy was developed because consideration of flood control methods is essential in the land use decision-making process and the failure of flood control systems may result in property damage and loss of life. The policy provides for maps that specifically designate the watercourses that are subject to flood control, thus eliminating uncertainty and providing a clear and easily accessible record of the district's areas of concern.

**San Diego County BOS Policy I-68, Proposed Projects in Floodplains with Defined Floodways**

This policy was developed to identify procedures to be used when proposed projects impact floodways as defined on County floodplain maps. The policy defines procedures to be implemented for the following types of proposals: 1) major construction that would change the floodplain or floodway; 2) relocation of a floodway; 3) partial filling of the floodplain fringe; 4) erosion and sedimentation in a floodplain; 5) increased flood flows; and 6) concrete or rip rap facilities.

**San Diego County BOS Policy I-73, Hillside Development Policy**

The purpose of this policy is to minimize the effects of disturbing natural terrain and to provide for creative design for hillside developments. It provides policies designed to minimize the permanent impact on-site resources including, but not limited to, existing natural terrain, established vegetation, visually significant geologic displays, and portions of a site that have significant public or multiple-use value. Specifically, Policy 1.e requires planning of hillside developments to minimize potential soil, geological and drainage problems.

**County of San Diego Code of Regulatory Ordinances Section 91.1.105.10, Flood Damage Prevention Ordinance**

This ordinance was established to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas throughout the County of San Diego. This ordinance defines methods to accomplish the goals of reducing flood losses, including: restricting uses which are dangerous to health, safety and property due to erosion or water hazards; requiring uses vulnerable to floods to be protected against flood damage at the time of construction; controlling the alteration of natural flood plains; controlling filling, grading, or dredging which may increase flood damage; and preventing construction of flood barriers which will divert flood waters or increase flood hazards in other areas. This ordinance also provides for provisions for standards of construction and standards for subdivisions in areas of special flood hazards.

**County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)**

For certain discretionary permit types, the RPO prohibits development of permanent structures for human habitation or as a place of work in a floodway. Uses permitted in a floodway pursuant to Section 86.604(c) of this ordinance include agricultural, recreational, and other such low-intensity uses provided that no use shall be permitted which will substantially harm the environmental values of a particular floodway area. Mineral resource extraction is also permitted in a floodway, with an approved Major Use Permit and Reclamation Plan, provided that mitigation measures are required which produce a net gain in the functional wetlands and riparian habitat. Additionally, Section 86.604(d) of the RPO allows uses in the floodplain fringe if they are permitted by zoning and are allowable in the floodway, as long as specific criteria are met.

**County of San Diego Code of Regulatory Ordinances Sections 67.801-67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO)**

The current WPO was adopted in March of 2008. The stated purposes of this ordinance is to protect the health, safety and general welfare of the County of San Diego residents; to protect water resources and to improve water quality; to cause the use of management practices by the County and its citizens that will reduce the adverse effects of polluted runoff discharges on waters of the State; to secure benefits from the use of stormwater as a resource; and to ensure the County is compliant with applicable state and federal law. The WPO contains discharge prohibitions, and requirements that vary depending on type of land use activity and location in the County. The WPO defines the requirements that are legally enforceable by the County in the unincorporated area.

In addition, the County has adopted its Standard Urban Stormwater Mitigation Plan (SUSMP) for Land Development and Public Improvement Projects. The SUSMP is focused on project design requirements and related post-construction requirements for land development and capital improvement projects, and addresses WPO requirements for these project types. The WPO also contains Low Impact Development (LID) requirements. LID is a storm water management approach that maintains the natural hydrologic character of a site or region by using design techniques that infiltrate, filter, store, evaporate, and detain runoff on site. A LID Handbook was developed in December 2007 to provide the development community with guidance on implementing LID strategies and practices.

**San Diego County Code of Regulatory Ordinances Sections 67.701-67.703, 67.710-67.711, 67.720-67.722, Groundwater Ordinance**

The County of San Diego currently manages anticipated future groundwater demand through the County Groundwater Ordinance. This Ordinance does not limit the number of wells or the amount of groundwater extraction from existing landowners. However, the Ordinance does identify specific measures to mitigate potential groundwater impacts of projects requiring specified discretionary permits. Existing land uses are not subject to the Ordinance unless a listed discretionary permit is required. Additionally, Major Use Permits or Major Use Permit Modifications which involve construction of agricultural and ranch support facilities or those involving new or expanded agricultural land uses are among the exemptions from the Ordinance. However, the agricultural exemption does not supersede or limit the application of any law or regulation, including CEQA. The Groundwater Ordinance separates the County into three areas of regulations: Borrego Valley, Groundwater Impacted Basins, and All Other Projects.

## 2.8.3 Analysis of Project Effects and Determination of Significance

### *2.8.3.1 Issue 1: Water Quality Standards and Requirements*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed General Plan Update have a significant impact if it would violate any water quality standards, otherwise degrade water quality or violate any water quality standards or waste discharge requirements. For land uses proposed at the maximum build-out allowed under the proposed General Plan Update, groundwater impacts may be potentially significant in areas of the County where pollutants exceed their respective Primary State or Federal Maximum Contaminant Level.

**Impact Analysis**

The following section evaluates the potential for the proposed General Plan Update to violate any water quality standards or otherwise degrade water quality by examining potential surface water quality issues and groundwater quality issues within the unincorporated County. Waste discharge requirements associated with wastewater are addressed in Section 2.16, Utilities and Service Systems.

## Surface Water Quality

Development of future land uses as designated in the proposed General Plan Update would have the potential to contribute to a violation of water quality standards or degradation of surface water quality. The following discussion of impacts is organized into two subsections: 1) Impacts from Construction Activities; and 2) Impacts Following Construction.

### *Impacts from Construction Activities*

The development of future land uses as designated in the proposed General Plan Update would have the potential to result in substantial additional sources of polluted runoff which would have short-term impacts on surface water quality through activities such as demolition, clearing and grading, excavation of undocumented fill materials, stockpiling of soils and materials, concrete pouring, painting, and asphalt surfacing. Typically, construction activities involve various types of equipment such as dozers, scrapers, graders, loaders, compactors, dump trucks, cranes, water trucks, and concrete mixers. Additionally, soils are typically stockpiled outdoors, in addition to other construction materials that would be used later during construction. Pollutants associated with these construction activities that would substantially degrade water quality include soils, debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials.

Pollutants associated with construction would degrade water quality if they are washed by stormwater or non-stormwater into surface waters. Sediment is often the most common pollutant associated with construction sites because of the associated earth-moving activities and areas of exposed soil. Sediment that is washed off site can result in turbidity in surface waters, which can impact aquatic species. In addition, when sediment is deposited into receiving water it can smother species, alter the substrate and habitat, and alter the drainage course. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete slurries discharged from construction sites could also impact aquatic plants and animals downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters and could impact wildlife as well as aesthetic value.

Under the NPDES permit program, Stormwater Pollution Prevention Plans (SWPPPs) are prepared and the BMPs identified in the SWPPPs are implemented for construction sites greater than one acre, in order to reduce the occurrence of pollutants in surface water. In compliance with applicable construction permits, the development of future land uses as designated in the proposed General Plan Update would continue to implement BMPs that minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff. While these measures help prevent degradation of water quality associated with construction sites greater than one acre, smaller construction activities pursuant to the General Plan Update designations would still have the potential to contribute pollutants such as soils, debris and other materials in quantities that would exceed water quality standards and otherwise significantly degrade water quality.

### *Impacts Following Construction*

Equipment and hazardous materials associated with construction operations would be removed from construction sites after development of proposed land uses is complete, which would reduce the potential for pollutants to be discharged. However, there are multiple constituents that have the potential to degrade surface water quality which are associated with land use

operations after development is constructed. These would include sediment discharge due to construction activities and post-construction areas left bare; nutrients from fertilizers; household hazardous waste that is improperly disposed of, including heavy metals and organic compounds; trash and debris deposited in drain inlets by new residents; oil and grease; by products resulting from vehicle use, including heavy metals; bacteria and viruses; and pesticides from landscaping, agriculture or home use. Generally, these constituents can be referred to as non-point source pollutants. Increased runoff from the development of future land uses as designated in the proposed General Plan Update would result in the contribution of non-point source pollution into surface and groundwater bodies. Although it is not expected that non-point source pollutants, caused from the development of future land uses as designated in the proposed General Plan Update, would violate water quality standards; these constituents would be expected to otherwise degrade water quality.

The NPDES permit program, as authorized by the CWA, controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. Point sources which require a NPDES permit are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Implementation of the General Plan Update would continue to require NPDES permits for any future projects subject to this regulation. Additionally, processes developed by the SWRCB and the RWQCB to improve water quality, such as storm water permits for new development and construction, would continue to be required for land uses and development implemented under the General Plan Update. For example, the State would continue to require General Construction Storm Water Permits, which regulate the discharge of polluted runoff during construction, for all future development over one acre proposed under the General Plan Update. Additionally, the County would continue to specify discharge prohibitions and additional requirements for construction sites as stated in the WPO.

Implementation of the General Plan Update would also have the potential to contribute non-point source pollutants to surface water bodies in quantities that could potentially violate water quality standards. Land uses proposed under the General Plan Update include residential, commercial and industrial, which could increase urban runoff containing oil, grease, metals, pathogens, TDS, sediments, or toxic chemicals. Additionally, multiple policies are proposed under the General Plan Update that would encourage agricultural operations in the County, which have the potential to contribute non-point source pollutants such as fertilizers, herbicides, insecticides, or bacteria into surface water bodies. However, the General Plan Update also includes multiple policies, such as low impact development, that would reduce the potential adverse environmental impacts associated with non-point source pollution.

Within both the incorporated and unincorporated County, over 70 water bodies are in violation of water quality standards. Table 2.8-1 identifies watersheds within the County that contain impaired water bodies as defined by the CWA 303(d) list. This table also shows the major pollutant/stressor for each impaired water body. Generally, pollutants of concern include elevated coliform bacteria levels, elevated levels of iron, manganese, phosphorus, nitrogen, total dissolved solids and various other pollutants. Implementation of the General Plan Update would concentrate future land uses in the western portion of the unincorporated County. Land uses proposed under the General Plan Update, such as residential, commercial, industrial and agricultural, would result in development that would contribute both point and non-point source pollutants to surface water bodies. WMAs that would be impacted by General Plan Update-

designated land uses include Santa Margarita River WMA, San Luis Rey WMA, Carlsbad WMA, San Dieguito WMA, Los Penasquitos WMA, San Diego River WMA, San Diego Bay WMA (including Sweetwater HU, Pueblo San Diego HU and Otay HU), and Tijuana River WMA. The location of these WMAs are shown on Figure 2.8-5. All of these WMAs have water bodies listed on the impaired water body list, as defined by the CWA 303(d) list (see Table 2.8-1). The General Plan Update would allow land uses and development that would contribute additional point and non-point source pollutants within WMAs that are in violation of water quality requirements.

**Groundwater Quality**

As part of the process for this EIR, the County General Plan Update Groundwater Study (DPLU 2009f) was prepared to evaluate existing water quality conditions that would have the potential to have a potentially significant impact to land uses proposed under the maximum build-out of the proposed General Plan Update. The following discussion summarizes the results of the County General Plan Update Groundwater Study in terms of the contaminants most likely to violate water quality standards. The complete study is provided in Appendix D. Additional information regarding the Groundwater Study is discussed below in Issue 2: Groundwater Supplies and Recharge. It should be noted that there is no water quality data available over a vast portion of the County; therefore, it is likely that there are additional areas within the unincorporated County with groundwater quality problems that are unknown.

The County General Plan Update Groundwater Study determined that the proposed General Plan Update would result in potentially significant impacts to water quality from proposing land uses in groundwater dependent areas that are currently experiencing groundwater contamination. Areas with existing contamination would not be able to support new development due to the non-potable (contaminated) water supply in the area. Groundwater that has contaminants that exceed the federal and State primary MCLs is not considered potable. Therefore, any land uses or development allowable under the proposed General Plan Update and dependent on areas with existing contaminated groundwater would not have a viable source of water. In addition, the proposed General Plan Update would allow for the development of small lots on septic systems and agricultural operations, which have the potential to contribute nitrate in quantities that degrade water quality and contribute to the continual degradation of existing water quality impacted areas. For some future projects, mitigation could be implemented by providing a water treatment system that reduces impacts to below the MCL. To ensure proper water treatment in accordance with the California Safe Drinking Water Act, the County requires discretionary permits which require treatment to form or merge with a water system regulated by the County Department of Environmental Health (up to 200 service connections) or the State Department of Public Health (greater than 200 service connections). For smaller projects, the ongoing costs of a regulated water system may prove economically infeasible and for projects with less than five service connections, there is no feasible regulated water system category available. In some cases, such as aquifers contaminated with gasoline from a leaking underground fuel tank, the County may not approve projects reliant on groundwater in such areas. Therefore, it is likely there will be specific cases where water quality impacts would be significant and unmitigable.

As discussed above in Section 2.8.1.4, Figure 2.8-6 depicts existing areas within the unincorporated County that are currently experiencing groundwater quality issues. These issues include LUFT sites, nitrates, radiochemicals, and areas with parcels smaller than four acres which are potentially susceptible to groundwater quality problems. Groundwater dependent land

uses proposed in the areas identified as having potential water quality impacts would potentially be dependent on a groundwater supply that contains water quality constituents at concentrations above Primary Federal or State Maximum Contaminant Levels, thus violating water quality standards. Contaminants identified in Figure 2.8-6 are discussed below in terms of the proposed General Plan Update.

### *Nitrates*

The development of land uses as designated in the proposed General Plan Update has the potential to violate water quality standards because of existing nitrate contamination. As depicted on Figure 2.8-6, existing unincorporated areas that are experiencing nitrate impacts to groundwater in quantities which violate water quality standards and limit the availability of potable groundwater include portions of: Alpine CPA along I-8; Cameron Corners in Campo (Mountain Empire Subregion); Crest/Dehesa Subregion; Jamul/Dulzura Subregion; Morena Village (Mountain Empire Subregion); Rainbow CPA; Ramona CPA; Valley Center CPA; and areas near Escondido and San Marcos. Other nitrate areas of concern within the unincorporated County include clustered residences located on parcels less than four acres on septic systems, which are also depicted on Figure 2.8-6. As shown in this figure, residences located on parcels less than four acres are generally located in the central portion of the unincorporated County, with increased concentrations occurring in Julian CPA, Jamul/Dulzura Subregion, and the Mountain Empire Subregion.

The proposed General Plan Update would designate land uses in unincorporated areas that are currently experiencing nitrate groundwater quality problems which would be susceptible to concentrations of nitrates that violate water quality standards. Future development of small lots and/or areas with shallow groundwater on septic systems or agricultural operations has the potential to degrade water quality from nitrates.

### *Naturally Occurring Radionuclides*

As discussed above, naturally occurring radionuclides are present to some extent in nearly all rocks and soil throughout the world and leach into groundwater from natural mineral deposits. As depicted in Figure 2.8-6, unincorporated areas that have been identified as having radionuclide contamination include: 1) Campo/Lake Morena (Mountain Empire Subregion); 2) Cuyamaca (Central Mountain Subregion)/Julian CPA; 3) Guatay (Central Mountain Subregion); 4) Jamul/Dulzura Subregion; 5) Lake Wohlford (Valley Center CPA); 6) Potrero (Mountain Empire Subregion); 7) Ramona CPA (east); 8) SR-79 (Dodge Valley) near Riverside County border; and 9) Warner Springs (Desert Subregion).

The proposed General Plan Update would designate land uses over unincorporated County areas that are currently experiencing radionuclide contamination in groundwater. Although it is unlikely that the proposed General Plan Update would exacerbate radionuclde contamination (as this is naturally occurring contaminant), new wells constructed to support development in the above identified areas would be susceptible to concentrations of radionuclides that violate water quality standards. This would be considered a potentially significant impact associated with groundwater quality.

### *Leaking Underground Fuel Tanks (LUFT)*

As depicted on Figure 2.8-6, there are many LUFT sites throughout the unincorporated County which have resulted, or have the potential to result, in petroleum hydrocarbon impacts to groundwater in quantities that violate water quality standards and limit the availability of potable

groundwater. Areas of concern include the Cameron Corners area of Campo (Mountain Empire Subregion), Julian CPA, Pine Valley (Central Mountain Subregion), and several other areas. The proposed General Plan Update would designate land uses over unincorporated County areas that are currently experiencing petroleum contaminated groundwater from LUFT sites. New wells constructed to support development in these areas would be susceptible to inducing the flow of contaminated groundwater which could result in a non-potable water supply. Additionally, some land uses proposed under the General Plan Update, such as industrial and commercial, would be associated with the use of underground fuel tanks. If these tanks were not adequately installed or maintained, they would contribute to groundwater quality degradation. This would be considered a potentially significant impact associated with groundwater water quality.

### *Other Constituents of Concern*

TDS originate naturally from the dissolution of rocks and minerals, and also can be from septic systems, agricultural runoff, and storm water runoff. Elevated bacteria in groundwater occurs primarily from human and animal wastes. The development of future land uses as designated in the proposed General Plan Update would have the potential to contribute other constituents of concern, specifically TDS and bacteria, in quantities that would violate water quality standards. The land uses proposed under the General Plan Update would allow for the development of septic systems, agricultural operations and impermeable surfaces, which are associated with TDS contamination. Additionally, when compared to existing conditions, implementation of the proposed General Plan Update would accommodate an increase in County population, thereby potentially increasing the chance of localized areas of elevated bacteria in groundwater that is attributable to humans. This would be considered a potentially significant impact associated with groundwater water quality.

### Federal, State and Local Regulations and Existing Regulatory Processes

In addition to the goals and policies proposed as part of the General Plan Update, federal and State regulations exist that reduce the potential for projects to violate water quality standards. These include, but are not limited to the CWA, which establishes water quality standards for all waters of the U.S.; Porter-Cologne Water Quality Control Act, which requires region-specific basin plans; NPDES, which regulates point source and nonpoint source discharges to surface waters of the U.S.; San Diego Basin Plan, which sets water quality objectives for the San Diego Basin; Colorado River Basin Plan, which sets water quality objectives for the Colorado River Basin; WPO, which protects water resources and improves water quality; and LID requirements, which establish stormwater management techniques.

All discretionary projects, including grading permits, are subject to review by the County for impacts to water quality. Storm Water Management Plans are prepared for essentially all actions associated with increases to impervious surfaces. Larger projects receive more in-depth analysis and have more stringent requirements pursuant to the WPO. Projects that propose the use of groundwater must demonstrate a viable water supply that meets state standards. Samples must be analyzed for radionuclides, nitrates, and other contaminants depending on location. If applicable standards cannot be met, alternative sources or treatment is required.

Septic systems are reviewed by the Department of Environmental Health. Potential impacts to water quality from septic systems are addressed as part of this review and, if necessary, would also be addressed as part of the CEQA compliance for a project.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that would reduce the potential for surface and groundwater quality requirements to be violated. Within the Land Use Element and the Conservation and Open Space Element, various goals include specific policies to reduce impacts to a level that would be less than significant. In the Land Use Element, Goal LU-6 would create a built environmental in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policies LU-6.5 and LU-6.9 would support this goal by ensuring that development implement sustainable stormwater management techniques and conform with topography. Goal LU-14 strives for communities and development with adequate wastewater disposal and addresses potential hazards to human health and the environment. This goal is supported by Policy LU-14.1, Policy LU-14.2, Policy LU-14.3 and Policy LU-14.4. These policies would require coordination with wastewater agencies or districts, require land development projects to provide adequate disposal of wastewater, require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency, and prohibit sewer facilities that would induce unplanned growth.

Within the Conservation and Open Space Element, Goal COS-4 promotes a balanced and regionally integrated water management approach to achieve the long-term viability of San Diego County's water quality and supply. Policies COS-4.2, COS-4.3 and COS-4.4 support this goal by requiring drought efficient landscaping, maximizing stormwater filtration and minimizing groundwater contamination from certain land uses. Goal COS-5 encourages the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policies COS-5.2, COS-5.3 and COS-5.5 support this goal minimizing impervious space and impacts from development to local water supplies.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would contribute pollutants such as sediments, hydrocarbons and paints in quantities that would otherwise significantly degrade surface water quality. It is also anticipated that non-point source pollutants, caused from the development of future land uses as designated in the proposed General Plan Update, would otherwise degrade surface water quality. Additionally, the County General Plan Update Groundwater Study determined that the proposed General Plan Update would result in potentially significant impacts to water quality from proposing land uses in groundwater dependent areas that are currently experiencing groundwater contamination. Additionally, proposed land uses may exacerbate existing groundwater quality impacts. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect water quality, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to water quality standards and requirements and specific implementation programs are identified as mitigation.

### *2.8.3.2 Issue 2: Groundwater Supplies and Recharge*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed General Plan Update would have a significant impact if it would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

**Impact Analysis**

As part of this EIR, a County General Plan Update Groundwater Study (DPLU 2009f) was prepared to evaluate the impacts of the proposed General Plan Update land uses on groundwater resources within the groundwater dependent portion of the County. The results from the County's groundwater study provide a regional screening level assessment to evaluate impacts to groundwater resources from the maximum build-out of the land uses proposed under the General Plan Update. The complete Groundwater Study is provided in Appendix D.

The study area for the County General Plan Update Groundwater Study consisted of approximately 1,885 square miles in the unincorporated County which is entirely groundwater dependent. The study area is bounded by Riverside County to the north, the U.S./Mexico international border to the south, the SDCWA service area boundary to the west, and desert basin aquifers and Imperial County to the east. The study area boundaries for the County Groundwater Study are identified in Figure 2.8-2. The study area uses no imported water, and imported water service is unlikely to be available for the foreseeable future within the study area. This is due to a number of reasons including: 1) lack of infrastructure, 2) limited availability of water in the desert southwest, 3) cost of providing imported water service; and, 4) discretionary approvals needed to extend the SDCWA boundaries further to the east.

Unincorporated areas excluded from the General Plan Update Groundwater Study include the western region of the County within the SDCWA service area, which is largely supplied with imported water from member agencies of the SDCWA. The analysis methodology used in the Groundwater Study was not applicable to desert basins and, therefore, desert basin aquifers in the eastern portion of the County were excluded. A summary of groundwater conditions within Borrego Valley are discussed separately below. The water supply situation of unincorporated lands that rely on imported water from the SDCWA is discussed within Section 2.16, Utilities and Service Systems.

The following discussion summarizes the methodology and results of the County Groundwater Study by examining groundwater supplies and recharge constraints under build-out of the proposed General Plan Update within four categories: 1) areas that would experience a 50 percent reduction of groundwater in storage; 2) areas that may be currently impacted by the combined drawdown of existing wells; 3) areas that would experience a high frequency of low well yield; and 4) Borrego Valley Aquifer.

**50 Percent Reduction of Groundwater in Storage**

As part of the County General Plan Update Groundwater Study, an evaluation of long-term groundwater availability within the unincorporated County was conducted on a basin-by-basin basis by comparing estimated groundwater recharge rates over a 34-year period of record to groundwater demand from existing land uses and land uses proposed under the proposed General Plan Update. For land uses proposed at the maximum build-out allowed under the proposed General Plan Update, groundwater impacts were considered potentially significant if a soil moisture balance, conducted using 34 years of precipitation data, indicated that at any time groundwater in storage within a basin was reduced to a level of 50 percent or less of maximum theoretical storage as a result of groundwater extraction.

The evaluation of long-term groundwater availability for each basin within the County General Plan Update Groundwater Study involved estimating the rate of groundwater recharge, the available storage capacity, and the rate of groundwater consumption. To estimate cumulative impacts to each basin, the soil moisture balance methodology was used to calculate groundwater recharge on a monthly basis for a 34-year time period. The groundwater demand and groundwater storage capacity were then estimated for each basin. A comparison of monthly recharge with groundwater extraction was made to calculate depletion of groundwater in storage during months when groundwater extraction exceeded recharge. If the cumulative depletion of storage of a basin during any month (over the 34-year period calculated) reached a level of 50 percent or less as a result of groundwater extraction, this was considered a potentially significant impact. The 50 percent criterion was established to address the unique characteristics of the County fractured rock aquifers which are characterized by limited storage capacity and very limited groundwater recharge during droughts and excess recharge during wet periods. These unique characteristics typically cause large fluctuations of the groundwater table over the short-term which are generally not observed in aquifers with large storage capacities. Unlike alluvial basins, it should be understood that groundwater impacts within fractured rock basins are typically limited to localized areas near a given pumping well (or wells) and impacts from any given area likely do not extend basin-wide. For this reason, the County General Plan Update Groundwater Study also identifies large quantity/clustered groundwater users (discussed below) within the study area where localized groundwater impacts are most likely to occur.

The County General Plan Update Groundwater Study identified 11 groundwater basins as potentially experiencing substantial groundwater in storage depletion from build-out of the proposed General Plan Update. These include the Ballena Basin, Barona Basin, Engineer Springs Basin, Guatay Basin, Las Lomas Muertas Basin, Lee Basin, Lyon Basin, Morena South Basin, Pine South Basin, San Felipe South Basin, and Spencer Basin. Figure 2.8-9 identifies the location of these impacted basins in addition to providing a summary of long-term groundwater availability results for each of the 86 basins evaluated in the County Groundwater Study. As shown in Figure 2.8-9, the majority of the 86 groundwater basins evaluated in the County Groundwater Study would retain a minimum of 80 to 100 percent of groundwater in storage under implementation of the General Plan Update. However, the 11 basins previously mentioned were determined to be potentially impacted upon build-out of the proposed General Plan Update. Table 2.8-6 identifies the 11 impacted groundwater basins in terms of existing minimum groundwater in storage and estimated minimum groundwater in storage at maximum build-out of future land uses as designated in the proposed General Plan Update. Seven of these 11 basins are expected to experience an estimated minimum groundwater in storage level of zero percent at a maximum buildout. This reduction in groundwater in storage would

substantially deplete groundwater supplies to a level that would not support the development of future land uses as designated in the proposed General Plan Update. Therefore, this would be considered a potentially significant impact. However, it is important to understand that due to the sheer size and complexity of the 1,885 square mile study area, the long-term groundwater availability results (being based on a limited amount of readily available information) are subject to substantial error and uncertainty. Therefore, a conservative approach was mandatory in the study to bias any potential errors towards overestimation of potential impacts. It should further be understood, that due to the nature of fractured rock aquifers, impacts to these basins would likely be limited to localized areas of higher groundwater use and do not necessarily extend basin-wide into areas with adequately spaced groundwater users. As discussed below, large quantity/clustered groundwater users identified within these 11 basins are areas where localized groundwater impacts are most likely to occur. Site-specific groundwater investigations would be necessary for future groundwater-dependent projects in these potentially impacted basins to provide specific details of the significance of groundwater impacts that cannot be provided at the screening level scale in which the study was conducted.

**Large Quantity/Clustered Groundwater Users**

The General Plan Update Groundwater Study identified areas that have been impacted in the past by large quantity groundwater users. As a screening tool to evaluate potential impacts from the proposed General Plan Update, groundwater impacts were considered potentially significant in identified areas of the County which would be currently impacted by the combined drawdown of existing wells. This screening tool identified potential impacts to proposed land uses from known areas where existing drawdown may prevent future wells from meeting their proposed land use objectives.

Clustered development areas utilize a concentrated amount of groundwater in a relatively small area, which increases the potential for a localized rapid decline in the water table to occur. As discussed in Section 2.8.1.1, susceptible areas that could be impacted by the combined drawdown of existing wells (well interference) include clustered residences on lots smaller than four acres, irrigated agricultural lands, and other known large groundwater users. Well interference reduces the well yield in affected wells by reducing the available drawdown in the well. The magnitude of well interference is dependent on the number and spacing of wells, the pumping rate, groundwater recharge, properties of the aquifer, and duration over which the pumping has occurred. Additionally, if clustered development is underlain by fractured rock with little saturated alluvium or residuum, the potential for water shortages is greater.

Areas that have been identified within the unincorporated County as currently experiencing groundwater supply impacts from large quantity and clustered groundwater users are shown on Figure 2.8-3. Based upon the screening tool identified above, this figure also depicts areas that would be potentially susceptible to localized groundwater problems under implementation of the proposed General Plan Update (shown in red). Areas identified as potentially experiencing localized groundwater impacts include parcels smaller than four acres, and irrigated agricultural lands.

Implementation of the proposed General Plan Update would designate land uses in areas that are currently experiencing groundwater supply impacts from large quantity and clustered groundwater users. Ballena Valley (Ramona CPA), Guatay (Central Mountain Subregion), Julian Town Center in Julian CPA, and Morena Village (Mountain Empire Subregion) have been identified under existing conditions as potentially experiencing groundwater problems from large

quantity and clustered groundwater users. Under implementation of the proposed General Plan Update, these areas would also face potentially significant groundwater supply issues because existing drawdown would have the potential to prevent future wells from meeting their proposed land use objectives. Therefore, this would be considered a significant impact.

**Low Well Yield**

The General Plan Update Groundwater Study considered groundwater impacts to be potentially significant if land uses proposed under the General Plan Update would occur in identified areas of the County which currently have a high frequency of wells with low well yield. Well yield and storage infrastructure must be capable of providing the water demand for a given project in groundwater-dependent areas of the County. For proposed residential groundwater discretionary projects on private wells, DPLU requires project applicants to conduct well testing on selected lots to determine if well production meets the required standard of 3 gpm for each well tested. Wells tested that cannot meet this requirement are considered to have a significant impact.

While most wells drilled in the County have been able to meet the needs of a typical single-family residence, approximately 11 percent of the 750 well logs reviewed within fractured rock aquifer areas had a reported well production rate of less than 3 gpm. As illustrated on Figure 2.8-2, area distribution of well yields often show no discernable pattern in fractured rock aquifers, and wells located near one another often have a large difference in yield. However, certain areas do have a series of wells with low production rates. Any area that has a series of wells with an indicated production rate of less than 3 gpm is shown in red on Figure 2.8-2 as a potentially susceptible area for low well yield. Portions of Lakeside CPA, Ramona CPA, and Morena Village (Mountain Empire Subregion) have been identified as areas which have a high frequency of wells with low well yield. Also, all steep slope areas depicted as slightly fractured crystalline rock on Figure 2.8-2 are considered generally susceptible to having low yielding wells.

The proposed General Plan Update would designate land uses requiring groundwater dependency in areas currently experiencing a high frequency of wells with low well yield, which would exacerbate existing groundwater impacts and potentially result in an inadequate water supply for additional users. The General Plan Update Groundwater Study indicates that the build-out development of future land uses as designated in the proposed General Plan Update would not be supported by adequate groundwater due to some wells having low-well yield in the portions of Lakeside, Ramona, and Morena Village and areas with steep slopes. Therefore, this would be considered a significant impact.

**Borrego Valley**

Borrego Valley covers an area of approximately 100 square miles within the Borrego Springs area of the Desert Subregion. As discussed in Appendix A of the General Plan Update Groundwater Study (provided as Appendix D to this EIR), Borrego Water District estimated that in 1999 the water remaining in the Borrego Valley upper and middle aquifers was approximately 1,685,000 AF. Based upon this estimation of groundwater in storage in 1999, if the overdraft condition continues at the estimated rate of 14,300 AF/Y, the upper and middle aquifers would be 50 percent depleted in approximately 50 years, and would be completely depleted in approximately 100 years. Although there are a number of factors that are not fully known regarding the Borrego Valley aquifer, groundwater overdraft conditions have more than tripled

since the 1980s, and any development consistent with the proposed General Plan Update and without groundwater mitigation measures in Borrego Valley would intensify the existing overdraft conditions.

Groundwater impacts from the overdraft condition are already occurring and will continue to worsen as mining of groundwater continues from development allowable under land uses proposed in the General Plan Update. Current impacts include dry wells, decreased well efficiency and increased pumping costs as water levels continue to decline. Under implementation of the General Plan Update, these conditions would continue and more wells would need to be replaced as water levels drop below perforated levels. Also, water quality impacts would occur as decreased water levels would induce flow of high salinity, poor quality connate water found in deeper formational materials of the aquifer. If continuing unabated, this would eventually necessitate the additional costly treatment of groundwater to make the water suitable as a drinking water supply.

Currently, building permits are granted on a case-by-case basis by the County, and it is not possible to accurately estimate the number of legally buildable parcels in Borrego Valley. However, the significant inventory of existing un-built lots could possibly provide over 3,000 future residential units without any additional subdivision. For Borrego Valley, the maximum number of allowable additional residential units permitted by the proposed General Plan Update is 8,689. An additional 8,689 residential units would be anticipated to use approximately 8,255 AF of groundwater per year (0.95 AF per residential unit). Without mitigation, this would increase the overdraft condition in Borrego Valley to over 22,000 AF/year and the aquifer would be depleted in far less time than previously estimated. The full build-out of the proposed General Plan land uses in the Desert Subregion is the worst-case scenario. Therefore, the General Plan Update would have a potentially significant impact to the Borrego Valley aquifer.

It should be noted that, based on recent development trends in Borrego Valley, build-out in the 21st century is unlikely, unless development trends change drastically. Between January 2001 and June 2008, approximately 42 residential building permits for Borrego Valley were processed per year by the County. At this rate of development, it would take approximately 200 years for build-out of the General Plan Update to occur.

**Federal, State and Local Regulations and Existing Regulatory Processes**

In addition to the goals and policies proposed as part of the General Plan Update, federal and State regulations exist that reduce impacts to groundwater supplies and recharge. These include, but are not limited to the: Porter-Cologne Water Quality Control Act, which requires region-specific Basin Plans; San Diego Basin Plan, which sets water quality objectives for the San Diego Basin; Colorado River Basin Plan, which sets water quality objectives for the Colorado River Basin; WPO, which protects water resources and improves water quality; and the County Groundwater Ordinance, which is intended to mitigate potential groundwater impacts of discretionary projects.

Through the Groundwater Ordinance and the County's CEQA Groundwater Guidelines, projects are currently reviewed on a case-by-case basis when proposing to use groundwater. Pump tests and modeling are typically required to demonstrate a viable water supply. These requirements are described in greater detail in these documents. In addition, specific guidance and mitigation is provided in the Groundwater Guidelines for all projects in Borrego since they all rely on its aquifer for water. It should also be noted that groundwater in Borrego Valley is

currently managed through local water agencies (Borrego Water District and Borrego Springs Park Community Services District). Management efforts aimed at addressing the overdraft condition of the Borrego aquifer include groundwater preservation fees; irrigated agricultural land purchases; tiered water rates; water recycling; artificial recharge; monitoring and data gathering; importation from other nearby basins or districts; and potential water storage and recovery efforts (see Appendix D, Groundwater Study, for additional details).

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that promote sustainable groundwater resources throughout the unincorporated County. Within the Land Use Element and the Conservation and Open Space Element, various goals include specific policies to reduce impacts to a level that would be less than significant. In the Land Use Element, Goal LU-8 promotes sustainable aquifers and functional groundwater recharge areas. Policies LU-8.1 and LU-8.2 would support this goal by requiring land use densities relate to groundwater sustainability and resources. Goal LU-13 and Goal COS-4 are the same and encourage a balanced and regionally integrated water management approach to ensure the long-term viability of San Diego County's water quality and supply. Policies LU-13.1 and LU-13.2 support this goal by requiring a commitment of water supply for new development and coordinating land use planning with water infrastructure planning. Policies COS-4.1, COS-4.2, COS-4.3 and COS-4.4 also support these goals by encouraging water conservation, drought efficient landscaping, stormwater filtration and minimizing potential groundwater contamination. Goal COS-5 would ensure the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.5 would support this goal by requiring new development projects to avoid impacts to the water quality in local reservoirs.

**Conclusion**

As discussed in the County General Plan Update Groundwater Study, there are multiple areas in the unincorporated County that are currently experiencing groundwater supply impacts. Implementation of the General Plan Update would allow land uses and development to occur in these areas, thereby worsening an already unsustainable groundwater supply. As discussed above, at maximum build-out of land uses proposed in the General Plan Update, groundwater supply impacts would occur in: 1) areas that experience a 50 percent reduction of groundwater in storage; 2) areas that may be currently impacted by the combined drawdown of existing wells; 3) areas that experience a high frequency of low well yield; and 4) Borrego Valley. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect groundwater resources, they would not be sufficient to ensure that significant impacts to groundwater resources are avoided. Therefore, the proposed project would result in a potentially significant impact to groundwater resources and mitigation measures would be required.

### *2.8.3.3 Issue 3: Erosion or Siltation*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would substantially alter the existing drainage pattern of the

site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.

## Impact Analysis

Implementation of the General Plan Update would result in the alteration of drainage patterns during construction activities and after construction activities associated with proposed land uses and development. The following section describes the potential impacts that would result from these activities that could alter the existing drainage pattern of a site or area, including through the alternation of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.

### Impacts from Construction Activities

Development of land uses designated in the proposed General Plan Update would result in the construction of residential, commercial and industrial structures. Land-disturbing construction activities such as the grading and excavation of land for construction of new building foundations, roads, driveways, and trenches for utilities, has the potential to result in localized temporary or permanent alteration of drainage patterns, or hydromodification. Hydromodification refers to changes in the magnitude and frequency of stream flows as a result of urbanization, and the resulting impacts on the receiving channels in terms of erosion, sedimentation, and degradation of in-stream habitat. This can lead to indirect effects on communities and sensitive biological resources downstream in the watershed, including: the deposition of pollutants and sediment to the watershed outlets; an increase in polluted runoff to surface and groundwater receiving bodies, and an increase in the flood potential downstream.

New construction and development of land uses designated in the proposed General Plan Update would continue to implement the NPDES permit program, which requires a SWPPP to be prepared and BMPs to be identified for construction sites greater than one acre. Additionally, all land disturbance activities occurring within the unincorporated County would be subject to the discharge prohibitions and additional requirements stated in the County WPO. Adherence to existing regulations would reduce erosion by minimizing site disturbance and controlling internal construction erosion.

Implementation of the General Plan Update would result in land disturbing activities from the construction of residential structures, industrial structures, commercial structures or infrastructure. These land disturbing activities would alter drainage patterns in a manner that would result in substantial erosion or siltation on or off site.

### Impacts Following Construction

Development of land uses designated in the proposed General Plan Update would result in the construction of new residential, commercial, and industrial buildings, roadways, agriculture, landscaping, and other features within the unincorporated County that are anticipated to result in permanent alterations to existing drainage patterns by converting areas within the County from pervious surfaces to impervious surfaces. Allowing the permanent development of impervious surfaces within the unincorporated County would increase runoff and potentially result in new erosion problems or the worsening of existing erosion problems. Development of land uses designated in the proposed General Plan Update would result in alterations to

existing drainage patterns in a manner that would result in substantial erosion or siltation on and off site.

### Federal, State and Local Regulations and Existing Regulatory Processes

In addition to the goals and policies proposed as part of the General Plan Update, federal and State regulations exist that reduce on-site and off-site erosion. For example, the MS4 permit, required by NPDES, requires the development of a hydromodification management plan (HMP). Pursuant to RWQCB Order 2007-0001, provision D.1.g, HMPs shall be prepared with the purpose of managing increases in runoff discharge rates and durations from specific projects, where such increased rates and durations are likely to cause increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force. Additional existing regulations include, but are not limited to, the following: NPDES, which regulates point source and nonpoint source discharges to surface waters of the U.S.; the County Grading, Clearing and Watercourses Ordinance, which requires work to be conducted in such a manner as to protect against both short-term and long-term erosion and instability; WPO, which protects water resources and improves water quality; and LID, which establishes stormwater management techniques. As a result of these requirements, discretionary projects are reviewed for hydrology similar to the extent that they are for storm water quality. Regulations require site design to account for hydrology and drainage studies are required for projects with significant increases in impervious surfaces. Projects are discouraged from diverting or increasing flows that cross a site. Larger projects (those with 50 acres of disturbance or greater) are subject to hydromodification requirements and must develop a project-level HMP.

### Proposed General Plan Update Goals and Policies

The General Plan Update includes goals and policies that would reduce the potential for significant drainage impacts to occur in a manner which would result in substantial erosion or siltation on or off site. Within the Land Use Element and Conservation and Open Space Element, various goals include specific policies to reduce impacts to a level that would be less than significant. Within the Land Use Element, Goal LU-6 would create a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.5 supports this goal by ensuring that development minimize the use of impervious surfaces, use Low Impact Development techniques, and incorporate best management practices. Policy LU-6.9 would require new development to conform to the natural topography of the site to utilize natural drainage and topography in conveying stormwater.

Within the Conservation and Open Space Element, Goal COS-5 would ensure the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.3 would support this goal by requiring new development to protect downslope areas from erosion.

### Summary

The development of future land uses as designated in the proposed General Plan Update would have the potential to result in the alteration of drainage patterns in a manner which would result in substantial erosion or siltation on or off site. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts

associated with excessive erosion or siltation, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with excessive erosion or siltation and specific implementation programs are identified as mitigation.

### *2.8.3.4 Issue 4: Flooding*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

**Impact Analysis**

Implementation of the General Plan Update would result in the alteration of drainage patterns during construction activities and after construction activities associated the development of future land uses as designated in the proposed General Plan Update. The following section describes the potential impacts that would result from these activities that could alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

**Impacts from Construction Activities**

Land-disturbing construction activities associated with the development of future land uses as designated in the General Plan Update, such as grading and excavation, construction of new building foundations, roads, driveways, and trenches for utilities, would result in the localized alteration of drainage patterns. Temporary ponding and/or flooding could result from such activities, from temporary alterations of the drainage system (reducing its capacity of carrying runoff), or from the temporary creation of a sump condition due to grading.

Under the NPDES permit program, Stormwater Pollution Prevention Plans (SWPPP) are prepared and BMPs identified in the SWPPPs are implemented for construction sites greater than one acre, which reduce the likelihood of alterations in drainage to result in these impacts. In compliance with applicable construction permits, the development of future land uses as designated in the proposed General Plan Update would continue to implement BMPs, such as the following:

- **Minimizing disturbed areas.** Clearing of land is limited to that which will be actively under construction in the near term, new land disturbance during the rainy season is minimized, and disturbance to sensitive areas or areas that would not be affected by construction is minimized.
- **Stabilizing disturbed areas.** Temporary stabilization of disturbed soils is provided whenever active construction is not occurring on a portion of the site, and permanent stabilization is provided by finish grading and permanent landscaping.

- **Protecting slopes and channels.** Outside of the approved grading plan area, disturbance of natural channels is avoided, slopes and crossings are stabilized, and increases in runoff velocity caused by the project is managed to avoid erosion to slopes and channels.
- **Controlling the site perimeter.** Upstream runoff is diverted around or safely conveyed through the project and is kept free of excessive sediment and other constituents.
- **Controlling internal erosion.** Sediment-laden waters from disturbed, active areas within the site are detained.

Implementation of appropriate BMPs, as part of compliance with construction permits for construction sites greater than one acre, would reduce the potential for the development of future land uses as designated in the proposed General Plan Update to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in flooding on or off site.

**Impacts Following Construction**

The development of future land uses as designated in the proposed General Plan Update would result in land uses that would convert permeable surfaces to impermeable surfaces, such as houses, buildings, parking lots, and roadways. An increase in impermeable surfaces would substantially alter the existing drainage pattern of a site or area by increasing the amount and rate of surface runoff in a manner which would have the potential to result in flooding on or off site. Additionally, impermeable surfaces and development would potentially create a diversion from the natural runoff pattern in a manner that would have the potential to result in flooding. In undeveloped areas such as much of eastern unincorporated San Diego County, rainfall collects and is stored on vegetation, in the soil column, or in surface depressions. When this storage capacity is filled, runoff flows slowly through the soil as subsurface flow. In contrast, developed areas, where much of the land surface is covered by roads and buildings, have less capacity to store rainfall. Impermeable surfaces such as roads, roofs, parking lots, and sidewalks that store little water, reduce infiltration of water into the ground, and accelerate runoff to ditches and streams. Even in suburban areas, where lawns and other permeable landscaping would be common, rainfall can saturate thin soils and produce overland flow, which runs off quickly. As a result of accelerated runoff from development or construction activities, the peak discharge, volume, and frequency of floods would increase in nearby streams (Konrad 2003).

The development of future land uses as designated in the proposed General Plan Update would increase the rate and amount of surface runoff to streams and rivers in a manner which would result in flooding on or off site.

**Federal, State and Local Regulations and Existing Regulatory Processes**

In addition to the goals and policies proposed as part of the General Plan Update, federal and State regulations exist that reduce the potential for on-site or off-site flooding from drainage pattern alteration. These include, but are not limited to, the following: National Flood Insurance Act, which establishes flood-risk zones within floodplain areas; National Flood Insurance Reform Act, which reduces the risk of flood damage to properties; Cobey-Alquist Floodplain Management Act, which protects people and property from flooding hazards; BOS Policy I-45, which identifies procedures to use when proposed projects impact floodways; County Flood Damage Prevention Ordinance, which regulates development within all areas of special flood

hazards and areas of flood-related erosion hazards, and establishes policies that minimize public and private losses due to flood conditions; the County Grading, Clearing and Watercourses Ordinance, which prohibits work within watercourses that would result in flood hazards; and RPO, which prohibits development of permanent structures for human habitation in a floodway. As discussed under Issue 3, these and other regulations result in a substantial amount of review by the County on the hydrologic impacts of proposed projects. Through these reviews, studies are performed and design changes or mitigation are required when necessary.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that reduce the potential for the substantial alteration of existing drainage patterns of a site or area or the excessive increase in runoff to occur in a manner which would result in flooding on or off site. Within the Land Use Element, and Safety Element, various goals include specific policies to reduce impacts to a level that would be less than significant. Within the Land Use Element, Goal LU-6 would to create a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.5 supports this goal by ensuring that development minimizes the use of impervious surfaces, to use other Low Impact Development techniques, and to use best management practices. Policy LU-6.10 supports this goal by requiring new development be located and designed to protect property and residents from hazard risks.

Within the Safety Element, Goal S-9 is to minimize personal injury and property damage losses resulting from flood events. Policy S-9.3 would support this goal by minimizing new development in floodplains. Goal S-10 would ensure that floodways and floodplains have acceptable capacity to accommodate flood events. Policy S-10.2 would support this goal by requiring the use of natural channels for County flood control facilities. Policy S-10.3 would require flood control facilities to be adequately sized, constructed, and maintained to operate effectively. Policy S-10.4 would require new development to incorporate measures to minimize storm water impacts. Policy S-10.6 would ensure new development maintains the existing area's hydrology.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would have the potential to result in substantial alteration of existing drainage patterns and increase the rate or amount of surface runoff in a manner which would result in flooding on or off site during construction activities and after construction activities. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce flooding hazards, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with flooding and specific implementation programs are identified as mitigation.

### *2.8.3.5 Issue 5: Exceed Capacity of Stormwater Systems*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

**Impact Analysis**

Drainage facilities including storm drains, culverts, inlets, channels, curbs, roads, or other such structures are designed to prevent flooding by collecting stormwater runoff and directing flows to either the natural drainage course and/or away from urban development. If drainage facilities are not adequately designed, built, or properly maintained, the capacity of the existing facilities can be exceeded resulting in flooding and increased sources of polluted runoff.

Implementation of the proposed General Plan Update would have the potential to substantially alter drainages and hydrology, during construction and post-construction activities allowable under the proposed land uses, which would potentially increase runoff in volumes that would exceed the existing storm water drainage systems in the County. Land disturbing construction activities associated with development allowable under the land uses proposed in the General Plan Update, such as grading and excavation of project sites, construction of new building foundations, roads, driveways, and trenches for utilities, would result in the localized alteration of drainage patterns. These alterations would have the potential to result in temporarily exceeding the capacity of storm water facilities if substantial drainage is rerouted. Under the NPDES permit program, construction activities on sites larger than one acre, and allowable under the proposed General Plan Update land uses, would be required to prepare SWPPPs and identify BMPs to reduce the likelihood that existing stormwater facilities would be exceeded. Additionally, all ground disturbing activities, allowable under the land uses proposed in the General Plan Update, would be required to comply with the WPO.

Implementation of the General Plan Update would result in land uses and development that would increase the amount of impermeable surfaces throughout the County and potentially result in an excess of polluted runoff that would exceed the capacity of existing drainage facilities. Storm water discharges are generated by precipitation and runoff from land, pavement, building rooftops, and other surfaces. Storm water runoff accumulates pollutants such as oil and grease, chemicals, nutrients, metals, and bacteria as it travels across land. Residential, commercial and industrial land uses proposed under the General Plan Update would increase the amount of impermeable surfaces within the unincorporated County from the development of building rooftops, parking lots, pedestrian paths and sidewalks, roads and driveways associated with these land uses. Generally, higher density land uses, such as village residential or village core mixed use, are attributable to higher concentrations of impermeable surfaces. Under implementation of the proposed General Plan Update, the western portion of the unincorporated County would be particularly susceptible to an increase in impermeable surfaces because this area would be concentrated with higher density land uses to accommodate future growth. Substantial increased runoff volumes would have the potential to overload existing drainage facilities and increase flows and velocity which could result in flooding, increased erosion, and impacts to downstream receiving waters and habitat integrity.

In most cases, future development of land uses proposed under the General Plan Update would incorporate swales, ditches, and storm drains where appropriate to convey runoff. In some cases, detention facilities would be proposed to attenuate post-development flows. However, if drainage facilities are not adequately designed, built, or properly maintained, existing stormwater facilities would potentially overflow or fail. Therefore, the construction and post-construction activities involved with the development of the land uses proposed under the General Plan Update would have the potential to increase runoff in volumes that would exceed the existing storm water drainage systems in the County.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The regulations that apply to this issue are the same as those discussed above in Section 2.8.3.1, Issue 1: Water Quality Standards and Requirements; Section 2.8.3.3, Issue 3: Erosion or Siltation; and Section 2.8.3.4, Issue 4: Flooding.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains goals and policies that would reduce the potential for the development of future land uses as designated in the General Plan Update to exceed stormwater drainage systems. Within the Land Use Element, Conservation and Open Space Element and Safety Element, various goals include specific policies to reduce impacts to a level that would be less than significant. Within the Land Use Element, Goal LU-6 aims to create a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.5 would support this goal by ensuring development minimizes the use of impervious surfaces, to use other Low Impact Development techniques, and to use best management practices. Policy LU-6.9 would require new development to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

Within the Conservation and Open Space Element, Goal COS-4 would create a balanced and regionally integrated water management approach to achieve the long-term viability of San Diego County's water quality and supply. Policy COS-4.3 would support this goal by maximizing stormwater filtration and the natural drainage patterns. Goal COS-5 would ensure the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.2 would support this goal by requiring new development to minimize the use of directly connected impervious surfaces and to retain stormwater runoff.

Within the Safety Element, Goal S-9 would minimize personal injury and property damage from flood events. Policy S-9.2 would support this goal by minimizing new development in floodplains. Goal S-10 would ensure that floodways and floodplains have acceptable capacity to accommodate flood events. Policy S-10.2 would support this goal by requiring the use of natural channels for County flood control facilities. Policy S-10.3 would require flood control facilities to be adequately sized, constructed, and maintained to operate effectively. Policy S-10.4 would require new development to minimize storm water impacts. Policy S-10.5 would require new development to provide necessary on-site and off-site improvements to storm water runoff and drainage facilities. Policy S-10.6 would ensure that new development maintains the existing area's hydrology.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would have the potential to contribute run-off in a manner that would exceed existing stormwater drainage facilities. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts to stormwater systems, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the exceedance of stormwater drainage system capacity and specific implementation programs are identified as mitigation.

### *2.8.3.6 Issue 6: Housing within a 100-year Flood Hazard Area*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

**Impact Analysis**

Flooding can inundate and cause water damage to structures, bury structures, knock them off their foundations, or completely destroy them by the impact of high velocity water and debris, which can include sizable boulders. Impacts resulting from flooding include the loss of life and/or property; health and safety hazards; disruption of commerce, water, power, and telecommunications services; loss of agricultural lands; and infrastructure damage.

Land uses proposed under the General Plan Update that have the highest potential to contain housing, due to residential designations, include village residential, village core mixed use, semi-rural residential, and rural residential. Table 2.8-7 identifies proposed land uses under implementation of the General Plan Update that would occur within a FEMA 100-year floodway or floodplain or alluvial fan. Under the proposed General Plan Update, approximately 2,824 acres of village residential, less than one acre of village core mixed use, 15,282 acres of semi-rural residential, and 19,925 acres of rural land uses are proposed within these flood areas. Allowable land uses under these designations include housing. Increased development of land uses in the flood plain would reduce the County's ability to respond to floodplain issues and result in a greater potential for conflicts with flooding hazards. Therefore, this is considered to be a significant impact.

It should be noted that when compared to existing land use designations throughout the County, the General Plan Update would designate lower density land uses in some areas with the potential to experience flooding and would, therefore, result in less development and a lesser risk for housing to be placed within certain flood hazard areas. Chapter 4.0, Project Alternatives, provides more information on the proposed project as compared to the No Project Alternative, which would continue to implement the existing General Plan land uses throughout the unincorporated County.

### Federal, State and Local Regulations and Existing Regulatory Processes

Federal, state and local regulations exist that would reduce impacts related to the placement of housing within a 100-year flood hazard area. These include, but are not limited to, the following: National Flood Insurance Act, which establishes flood-risk zones within floodplain areas; National Flood Insurance Reform Act, which reduces the risk of flood damage to properties; Cobey-Alquist Floodplain Management Act, which protects people and property from flooding hazards; BOS Policy I-45, which identifies procedures to use when proposed projects impact floodways; County Flood Damage Prevention Ordinance, which regulates development within all areas of special flood hazards and areas of flood-related erosion hazards and establishes policies that minimize public and private losses due to flood conditions; the County Grading, Clearing and Watercourses Ordinance, which requires the lowest floor of structures to be elevated to or above the level of the 100-year flood; County Subdivision Ordinance, which requires mapping and drainage easements to avoid certain drainages; and RPO, which prohibits development of permanent structures for human habitation in a floodway. As a result of these regulations, development within floodplains and development that would have the potential to adversely affect flooding hazards are highly regulated and addressed at all levels of the County's development review process.

### Proposed General Plan Update Goals and Policies

The proposed General Plan Update contains goals and policies that would reduce the potential for housing to be placed within a 100-year flood area. Within the Land Use Element, Conservation and Open Space Element and Safety Element, various goals include specific policies to reduce impacts to a level that would be less than significant. Within the Land Use Element, Goal LU-6 would create a built environmental in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.12 would support this goal by requiring document and annual review of areas within floodways.

Within the Conservation and Open Space Element, Goal COS-5 would ensure the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.1 would support this goal by restricting development in floodways and floodplains. Within the Safety Element, Goal S-9 would minimize personal injury and property damage from flood events. This goal is supported by Policies S-9.1, S-9.2, S-9.3, S-9.4, and S-9.5. These policies support this goal by prohibiting development is various areas with increased flooding hazards. Goal S-10 is floodways and floodplains that have acceptable capacity to accommodate flood events. Policy S-10.1 supports this goal by limiting new and expanded land uses within floodways.

### Summary

The development of future land uses as designated in the proposed General Plan Update would result in the placement of housing within flood hazard areas. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with the placement of housing in flood hazard areas, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with housing in flood hazard areas and specific implementation programs are identified as mitigation.

### *2.8.3.7 Issue 7: Impeding or Redirecting Flood Flows*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would place within a 100-year flood hazard area structures which would impede or redirect flood flows.

**Impact Analysis**

Development along stream channels and floodplains can alter the capacity of a channel to convey water and can increase the height of the water surface corresponding to a given discharge. In particular, structures that encroach on a floodplain, such as bridges, can increase upstream flooding by narrowing the width of the channel and increasing the channel's resistance to flow. As a result, the water is at a higher level as it flows past the obstruction, creating a backwater that could inundate a larger area upstream.

Most land use designations proposed under the General Plan Update would allow for the construction of structures. For example, houses would be constructed in areas designated for residential land use, buildings, factories and stores would be constructed in areas designated for commercial and industrial land uses, and bridges would be constructed in areas designated as national forest and open space in order to provide public access to these areas. If these structures were proposed in the 100-year floodplain, they would impede or redirect flood flows. However, certain land uses are more likely to be associated with high density development and therefore have a higher potential to impede or redirect flood flows if proposed within a 100-year flood plain. Land uses proposed under the General Plan Update with an increased potential to impede or redirect flood flows due to high density development include village residential, village core mixed use, neighborhood commercial, general commercial, limited impact industrial, medium impact industrial, and high impact industrial. Table 2.8-7 identifies proposed land uses, under implementation of the General Plan Update that would occur within a 100-year flood area. Under implementation of the General Plan Update the following land uses designations would include areas located within a floodplain or floodplain fringe: village residential, 2,824 acres; village core mixed use, less than one acre; neighborhood commercial, 4 acres; general commercial, 285 acres; limited impact industrial, 161 acres; medium impact industrial, 230 acres; and high impact industrial, 71 acres. These land uses have the potential to contain structures that would impede or redirect flood flows. Therefore, this is considered a potentially significant impact.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The regulations that apply to this issue are the same as those discussed above in Section 2.8.3.6, Issue 6: Housing within a 100-year Flood Hazard Area.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains goals and policies within the Land Use Element, Conservation and Open Space Element and Safety Element, that would reduce the potential for structures to impede or redirect flood flows.

Goal LU-6 would create a built environmental in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.12 would support this goal by requiring document and annual review of areas within floodways.

Goal COS-5 would create the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.1 would support this goal by restricting development in floodways and floodplains.

Goal S-9 would minimize personal injury and property damage losses resulting from flood events**.** This goal is supported by Policies S-9.1, S-9.2, S-9.3, S-9.4 and S-9.5. Policy S-9.1 would manage development based on Federal floodplain maps. Policy S-9.2 would minimize new development in floodplains. Policy S-9.3 would require new development within mapped flood hazard areas be sited and designed, to minimize on-site and off-site hazards to health, safety, and property due to flooding. Policy S-9.4 would allow, in villages, new uses and development within the floodplain fringe and in semi-rural and rural lands only when environmental impacts and hazards are mitigated. Policy S-9.5 prohibits, in semi-rural and rural lands, development in the floodplain fringe to maintain the capacity of floodplain. Goal S-10 would ensure that floodways and floodplains have acceptable capacity to accommodate flood events. Policy S-10.1 supports this goal by limiting new or expanded land uses within floodways.

**Summary**

The General Plan Update would propose village residential, village core mixed use, neighborhood commercial, general commercial, limited impact industrial, medium impact industrial, and high impact industrial land uses in areas located within a floodplain or floodplain fringe. These land uses have the potential to contain structures that would impede or redirect flood flows. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with placement of structures that impede or redirect flood flows, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact related to placement of structures within flood hazard areas and specific implementation programs are identified as mitigation.

### *2.8.3.8 Issue 8: Dam Inundation and Flood Hazards*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

**Impact Analysis**

Certain land uses have a higher risk of exposing people or structures to flooding hazards associated with the failure of a levee or dam because they allow for higher density development.

These include village residential, village core mixed use, neighborhood commercial, general commercial, limited impact industrial, medium impact industrial, and high impact industrial development. In order to present a hazard, these land uses must also be located in an area subject to flooding or levee/dam inundation. Within the unincorporated County there are approximately 31 dams that pose inundation risk in the event of a breach or failure. These dams are listed in Table 2.8-4 and shown in Figure 2.8-7. Often, a single dam can pose inundation risks to multiple communities. The affected CPAs associated with each dam are also provided in Table 2.8-4.

Approximately 56,000 acres of unincorporated County land would be subject to flooding and inundation as a result of dam failure. Table 2.8-8 identifies the proposed General Plan Update land use designations that would be located within the dam inundation areas. Land uses that would experience the greatest inundation risk from implementation of the proposed General Plan Update include the following: open space (13,941 acres); military installations (13,955 acres); and rural lands (9,942 acres). Rural lands and open space are low density land use designations that would reduce the risk of loss of life and property from dam inundation as compared to higher density land uses. It should be noted that military lands are not under the jurisdiction of the County and are not subject to the proposed goals and policies of the General Plan Update. In addition, implementation of the proposed General Plan Update would result in the location of high density land uses in areas that are subject to flooding from dam inundation, including: specific plan areas (4,669 acres); village residential (2,762 acres); public/semi-public lands (1,733 acres); neighborhood commercial (8 acres); general commercial (530 acres); medium impact industrial (243 acres); office professional (26 acres); and high impact industrial (72 acres). In total, approximately 10,043 acres of land would be designated for high density land uses that would have a high risk of loss of life or property from flooding due to dam inundation.

Emergency response plans, such as Dam Inundation Maps or the County's Multi-Jurisdictional Hazard Mitigation Plan, are the official documents that describe the principles, policies, and concepts of the operations, methods and procedures to be applied when carrying out emergency operations or rendering mutual aid in the event of a dam inundation emergency. All dam owners within the unincorporated County have prepared Dam Inundation Maps that delineate dam inundation zones or the areas at risk in the event of failure, for each dam. These maps are on file with the County of San Diego. The Multi-Jurisdictional Hazard Mitigation Plan identifies dam failure risk levels based on Dam Inundation Map data. A dam is considered to be high hazard if it stores more than 1,000 acre-feet of water, is higher than 150 feet in height, has the potential to cause downstream property damage, and has the potential for to require downstream evacuation. Ratings are set by FEMA and confirmed with site visits by engineers. Most of the County's dams are greater than 50 years old, characterized by increased hazard potential due to downstream development, and have increased risk from structural deterioration and inadequate spillway capacity.

Unique institutions located or proposed in dam inundation zones could result in a significant loss of life in the event of a dam failure due to the size and nature of the uses and the difficulty with evacuating large concentrations of people. Unique institutions include hospitals, schools, skilled nursing facilities, retirement homes, mental health care facilities, care facilities with patients that have disabilities, adult and childcare facility, jails/detention facilities, stadiums, arenas, amphitheaters, or any other use that would involve concentrations of people. The inability to efficiently evacuate unique institutions could cause a significant loss of life.

The OES maintains Dam Evacuation Plans within the unincorporated County. Emergency plans for dam evacuation are necessary to plan for the loss of life, damage to property, displacement of people, and other ensuing hazards that can occur from dam failure. In the event of dam failure, damage control and disaster relief would be required and mass evacuation of the inundation areas would be essential to save lives. Dam evacuation plans contain information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions and event responses. In addition, the plans include inundation maps showing direction of flow; inundation area boundaries; hospitals, schools, multipurpose staging areas; command posts/sites; and mass care and shelter facilities/sites. Unique institutions, as defined by the OES, include the following types of facilities: hospitals, schools, skilled nursing facilities, retirement homes, mental health care facilities, care facilities with patients that have disabilities, adult and childcare facilities, jails/detention facilities, stadiums, arenas and amphitheaters.

As shown in Table 2.8-8, the proposed General Plan Update would designate approximately 2,762 acres of village residential, 8 acres of neighborhood commercial, 530 acres of general commercial, 243 acres of medium impact industrial and 72 acres of high impact industrial land uses in dam inundation risk areas. These land uses would allow large concentrations of people or unique institutions in a dam inundation area and could cause adverse effects related to the implementation of Dam Evacuation Plans and the Multi-Jurisdictional Hazard Mitigation Plan. Additional information on Dam Evacuation Plans and the Multi-Jurisdictional Hazard Mitigation Plan is provided in Section 2.7, Hazards and Hazardous Materials. Successful implementation of a Dam Evacuation Plan depends on the ability of proposed land uses in dam inundation areas to expeditiously evacuate in order to minimize the loss of life from the dam failure. Unique institutions proposed within dam inundation areas would typically be difficult to evacuate safely and expeditiously, thus impeding successful implementation of a Dam Evacuation Plan.

It should be noted that in 2006, California Governor declared a State of Emergency for California's levee system in an attempt to prevent substantial adverse impacts associated with flooding in the event of levee failure. Since that time, hundreds of levee sites have been identified for repair so that the functionality of these flood control systems can be maintained. Levees identified as needing repairs were found to have deteriorated over time and/or not meet current design standards. There are no levee repair sites located in San Diego County (DWR 2008).

**Federal, State and Local Regulations and Existing Regulatory Processes**

The regulations that apply to flooding are the same as those discussed above in Section 2.8.3.6, Issue 6: Housing within a 100-year Flood Hazard Area. In contrast to flood hazards, few regulations exist for dam inundation areas. The County maintains maps of dam inundation areas and reviews discretionary projects against them. Through compliance with CEQA, projects are reviewed for their consistency with the Office of Emergency Services' policies related to dam inundation areas. These policies discourage uses such as group care, hospitals, schools, and similar uses, that would have the potential to impair evacuation efforts should the need arise. If another suitable site cannot be found for these uses, it is possible that impacts can be mitigated through a site specific evacuation plan.

**Proposed General Plan Goals and Policies**

The proposed General Plan Update contains several goals and policies within the Conservation and Open Space Element and the Safety Element that would reduce the risk to people and

property from dam inundation. Goal COS-5 would create the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.1 would support this goal by restricting development in floodways and floodplains.

Goal S-9 would minimize personal injury and property damage losses resulting from flood events**.** This goal is supported by Policies S-9.1, S-9.2, S-9.3, and S-9.6. Policy S-9.1 would manage development based on Federal floodplain maps. Policy S-9.2 would minimize new development in floodplains. Policy S-9.3 would require new development within mapped flood hazard areas be sited and designed, to minimize on-site and off-site hazards to health, safety, and property due to flooding. Policy S-9.6 prohibits development in dam inundation areas that may interfere with the County's emergency response and evacuation plans. Goal S-10 would ensure that floodways and floodplains have acceptable capacity to accommodate flood events. Policy S-10.1 supports this goal by limiting new or expanded land uses within floodways.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would result in the potential to expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a levee or dam failure, by placing persons or housing in areas subject to flooding risks. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with dam inundation and flood hazards, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with dam inundation and flooding and specific implementation programs are identified as mitigation.

### *2.8.3.9 Issue 9: Seiche, Tsunami and Mudflow Hazards*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

**Impact Analysis**

The following section identifies the potential for a tsunami, seiche or mudflow event to occur within the unincorporated County, and the potential for people or structures to be exposed to significant risk of these hazards under implementation of the proposed General Plan Update.

**Tsunami**

A tsunami is a very large ocean wave caused by an underwater earthquake or volcanic eruption. Tsunamis can cause flooding to coastlines and inland areas less than 50 feet above sea level and within one mile of the shoreline. The majority of unincorporated San Diego County is located more than one mile inland, and is therefore not susceptible to inundation or flooding due to a tsunami. Pendleton/De Luz is the only portion of the unincorporated County that is

located on the coast of the Pacific Ocean, and therefore susceptible to inundation or flooding from a tsunami. However, the County does not have jurisdiction over land uses and development in the western portion of Pendleton/De Luz, which would potentially be affected by a tsunami. Additionally, as shown in Table 2.8-3, tsunamis have historically been infrequent and low in height in the vicinity of San Diego County. Four tsunamis have been reported since 1952, none more than five feet in height. Therefore, due to the location of the unincorporated County, mostly inland from the ocean and the fact that past historical tsunami events have been slight, potential impacts to the proposed General Plan Update from a tsunami would not be considered significant.

### Seiche

A seiche is a standing wave in a completely or partially enclosed body of water. Areas located along the shoreline of a lake or reservoir are susceptible to inundation by a seiche. High winds, seismic activity, or changes in atmospheric pressure are typical causes of seiches. The size of a seiche and the affected inundation area is dependant on different factors including size and depth of the water body, elevation, source, and if human made, the structural condition of the body of water in which the seiche occurs.

In the unincorporated County's semi-arid climate, naturally occurring enclosed water bodies are not common. Instead most enclosed water bodies are reservoirs built by local municipalities and water districts to provide water service to local residents and businesses. Typically, all land around the reservoirs' shorelines are in public holdings, such as the City of San Diego or Helix Water District, which restrict private land development and minimize risk of inundation from seiches. Moreover, the public land holdings are not within the jurisdiction of the unincorporated County. Therefore, the impact from a seiche on the proposed General Plan Update would be considered less than significant.

### Mudflows

Debris flows, also known as mudflows, are shallow water-saturated landslides that travel rapidly down slopes carrying rocks, brush, and other debris. Mudflows are the most common disaster in San Diego. A mudflow occurs naturally as a result of heavy rainfall on a slope that contains loose soil or debris. There is a high potential for mudflows to occur in some areas of the unincorporated County as a result of large amounts of precipitation in a relatively small time frame. Unincorporated San Diego County contains many areas with steep slopes, or mountainous areas, that would be subject to mudflows in the event of large amounts or precipitation. Additionally, much of the unincorporated County has recently been burned by wildland fires (see Figure 2.7-7 in Section 2.7 Hazards and Hazardous Materials) and is particularly susceptible to flash floods and debris flows during rainstorms. Under implementation of the General Plan Update, past areas affected by wildland fires would be designated as residential, commercial and industrial land uses, which have an increased risk of exposing people or structures to damage in the event of a mudflow. Therefore, this would be considered a significant impact.

### Federal, State, and Local Regulations

Few regulations exist that relate specifically to seiche, tsunami, or mudflow hazards. Mudflows are partially addressed through the flood hazard regulations that are discussed under Issue 6.

All issues are also covered by CEQA reviews for all discretionary projects processed by the County.

**Proposed General Plan Update Goals and Policies**

The General Plan Update several goals and policies that would reduce the potential for significant impacts to occur to people or structures from mudflows, seiches or tsunamis. Within the Conservation and Open Space Element, Goal COS-5 would create the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policy COS-5.1 would support this goal by restricting development in floodways and floodplains. Within the Safety Element, Goal S-8 is to minimize personal injury and property damage caused by mudslides, landslides and rockfalls. Policies S-8.1 and S-8.2 support this goal by reducing landslide risks to development and prohibiting development from contributing or causing slope instability. Goal S-9 is to minimize personal injury and property damage losses resulting from flood events. Policies S-9.3 and S-9.6 support this goal by minimizing development in flood hazard areas and prohibiting development in dam inundation areas.

**Summary**

Due to the inland location of the unincorporated County and the history of minor tsunami events, implementation of the proposed General Plan Update would not expose people or structures to hazards associated with inundation by a tsunami. Therefore, impacts associated with a tsunami would be less than significant. Additionally, implementation of the General Plan Update would not result in land uses or development within areas subject to inundation from a seiche. Therefore, this would not be considered a significant impact.

Implementation of the General Plan Update would locate land uses and development in areas that would be considered susceptible to mudflows. Therefore, this would be considered a significant impact. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with mudflows, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with mudflows and specific implementation programs are identified as mitigation.

## 2.8.4 Cumulative Impact Analysis

The geographic scope of cumulative impact analysis for hydrology and water quality includes drainage basins, watersheds, water bodies or groundwater basins, depending on the location of the potential impact and its tributary area.

### *2.8.4.1 Issue 1: Water Quality Standards and Requirements*

Construction and development associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans would contribute both point and non-point source pollutants to downstream receiving waters that have the potential to violate water quality standards. However, development and construction proposed under most cumulative projects would be subject to regulations that require

compliance with water quality standards, including: the CWA, Porter-Cologne Water Quality Control Act, NPDES, applicable basin plans, and local regulations. The exception to this would be projects proposed in Mexico, which are not subject to water quality discharge requirements and would result in water quality violations in shared WMAs, such as the Tijuana WMA and Anza-Borrego WMA. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S, watersheds or receiving waters that receive runoff from projects in Mexico, which would not be protected by the same requirements, would result in a potentially significant cumulative impact to water quality standards and requirements.

As discussed above, the proposed project would contribute both non-point and point source pollutants in quantities that have the potential to violate water quality standards or waste discharge requirements. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with water quality standards and requirements.

### *2.8.4.2 Issue 2: Groundwater Supplies and Recharge*

Groundwater basins typically serve localized areas and, therefore, any cumulative impacts would generally be localized. The area of cumulative analysis for groundwater supplies and recharge includes the groundwater dependent areas of the unincorporated County and the immediately adjacent jurisdictional areas that share groundwater basins with County areas. An inventory of General Plan Update land uses proposed in the groundwater dependent portion of the County adjacent to neighboring jurisdictions was compiled (DPLU 2009f) and is further discussed within Appendix D, Groundwater Study. Due to the rural nature of land uses proposed adjacent to Riverside and Imperial Counties, potential groundwater impacts would be less than significant. This is also true for the majority of proposed land use designations adjacent to State and federal lands, and those adjacent to most Native American reservations. The exceptions are the Campo and Los Coyotes Indian Reservations, which are located near the following higher density areas: Live Oak Springs and Warner Springs, respectively. Additional subdivisions are not anticipated within Live Oak Springs based on a review of the existing parcels there. Warner Springs is an existing Specific Plan that is well separated from development within the Los Coyotes Reservation. As such, potential cumulative impacts to supplies and recharge near tribal lands would not be considerable.

With the exception of the communities of Tecate and Jacumba, proposed land uses in the groundwater dependent portion of the County adjacent to Mexico consist of open space and rural lands. Due to the rural nature of these land uses, potential groundwater impacts to Mexico in these areas would be less than significant. Industrial and commercial designations are proposed in the port-of-entry community of Tecate; however, proposed groundwater usage will not be significant due to the low growth potential relative to neighboring Tecate City in Mexico. Semi-rural residential land uses are proposed within the community of Jacumba, which is located near the small community of Jacume, Mexico. As discussed in Appendix D, Groundwater Study, this community's watershed receives water from the south and would not be impacted by proposed land uses in the Jacumba community.

While cumulative contributions are not anticipated from these other sources, the impacts evaluated in Section 2.8.3.2 are cumulative in nature because they represent the combined influence of numerous past, present, and future users of the groundwater aquifers. Therefore,

similar to the conclusion in that section, the General Plan Update is also concluded to result in a significant cumulative impact.

### *2.8.4.3 Issue 3: Erosion or Siltation*

Cumulative projects identified in this analysis would result in multiple developments that would potentially alter existing drainage patterns in a manner that would result in substantial erosion or siltation. It is reasonably foreseeable that some cumulative projects would occur simultaneously, which would compound the impacts of erosion and siltation and therefore create a significant cumulative impact. Cumulative projects such as regional transportation projects, development consistent with general plans, and tribal developments would be expected to increase impervious surfaces within the region and, therefore, increase the potential for runoff to occur that would lead to erosion and siltation impacts. While cumulative projects would be expected to follow regulations, such as NPDES or others as applicable, when combined, they would still have the potential to result in a significant cumulative erosion and siltation impact, especially in watersheds that extend into Mexico, where U.S. hydrology and water quality regulations do not apply. Therefore, a significant cumulative impact to erosion or siltation would occur from proposed cumulative projects.

As discussed above, implementation of the General Plan Update has the potential to result in new erosion or worsen existing erosion problems. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with erosion or siltation.

### *2.8.4.4 Issue 4: Flooding*

Cumulative projects would result in land uses and development that would convert permeable surfaces to impermeable surfaces, such as through the construction of buildings, parking lots, and roadways. New development proposed under cumulative projects would have the potential to alter existing drainage patterns, increase the amount of runoff and potentially increase flooding in the San Diego region. Many cumulative projects in the U.S. would be subject to regulations that reduce the potential for existing drainages to be altered in such a way which would result in flooding on or off site. However, projects proposed in Mexico are not subject to the same drainage requirements and have the potential to alter drainage patterns that would increase flooding in watersheds that extend to both Mexico and the San Diego region. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S., watersheds that are located in Mexico and the U.S. would not be protected by the same requirements and a potentially significant cumulative impact to flooding would occur, especially in unincorporated County areas bordering Mexico.

As discussed above, implementation of the General Plan Update includes designations for land uses and development that would have the potential to increase the amount and rate of surface runoff in a manner which has the potential to result in flooding on or off site. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with flooding.

### 2.8.4.5 Issue 5: Exceed Capacity of Stormwater Systems

Many of the cumulative projects included in this analysis are proposed to accommodate the expected population growth within the region. Impermeable surfaces, constructed under implementation of these cumulative projects, would have the potential to contribute substantial quantities of runoff which would exceed the capacity of existing stormwater drainage systems, while contributing to substantial additional sources of polluted runoff. However, a cumulative project that would exceed the capacity of a stormwater system would be unlikely to contribute to a cumulative impact because the area of exposure would be limited to the immediate surrounding area. Additionally, the majority of cumulative projects would be subject to CEQA and/or NEPA review, and local regulations that require development to construct or retrofit stormwater drainage systems so that they would not cause flooding. A significant cumulative impact would not occur. Therefore, the proposed project, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact associated with the capacity of stormwater systems.

### 2.8.4.6 Issue 6: Housing within a 100-year Flood Hazard Area

Cumulative projects, such as those proposed in adjacent city and county general plans, would potentially place housing within a 100-year flood hazard area. However, most cumulative projects in California would be required to conform with applicable regulations, such as National Flood Insurance Act, National Flood Insurance Reform Act, and Cobey-Alquist Floodplain Management Act, which prohibit housing from being placed in floodways. Therefore, due to existing regulations, a cumulative impact would not occur. Therefore, the proposed project, in combination with the identified cumulative projects, would not result in a significant cumulative impact associated with housing within a flood hazard area.

### 2.8.4.7 Issue 7: Impeding or Redirecting Flood Flows

Cumulative projects included in this analysis have the potential to place residential land uses, commercial land uses, industrial land uses and various other land uses, with the potential to contain structures, within a 100-year flood plain. Placing structures within a 100-year flood plain would impede or redirect flood flows, thereby causing a significant impact. However, it is expected that most cumulative projects in California would be required to comply with applicable regulations that would prevent the construction of structures in floodways, such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management. Therefore, it is expected that through regulation, a cumulative impact would not occur. The proposed project, in combination with the identified cumulative projects, would not result in a significant impact associated with impeding or redirecting flood flows.

### 2.8.4.8 Issue 8: Dam Inundation and Flood Hazards

It is reasonably foreseeable that cumulative projects would place housing or structures within dam inundation areas, thereby increasing the potential for a significant risk of loss, injury or death involving flooding. However, multiple regulations exist, such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management Act, and local regulations that would be expected to mitigate any potential impacts to below a level of significance. A cumulative impact would not occur. Therefore, the proposed project, in

combination with the identified cumulative projects, would not contribute to a significant cumulative impact associated with dam inundation and flood hazards.

### *2.8.4.9 Issue 9: Seiche, Tsunami and Mudflow Hazards*

Cumulative projects in surrounding jurisdictions on the coast have the potential to expose people or structures to loss, injury or death involving inundation of a tsunami, due to the inherent risk involved with coastal development. However, the proposed project has no risk of tsunami and so it would not contribute to a cumulative impact. Additionally, cumulative projects would be located in the vicinity of natural water bodies that have the potential to be affected by a seiche, thereby exposing people and structures to flooding from this natural disaster. Mudflows would also potentially affect cumulative projects, especially in surrounding jurisdictions that have been affected by the extreme wildfire events in the recent past. However, the majority of cumulative projects would be subject to CEQA and/or NEPA review, in addition to compliance with applicable regulations such as the National Flood Insurance Act, National Flood Insurance Reform Act, Cobey-Alquist Floodplain Management Act and local regulations, and impacts would be reduced to a level below significant. A cumulative impact would not occur. Therefore, the proposed project, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact associated with seiche, tsunami, and mudflow hazards.

## 2.8.5 Significance of Impact Prior to Mitigation

The proposed General Plan Update would result in a potentially significant impact associated with water quality standards, groundwater supplies, erosion, flooding, stormwater systems, housing within a flood area, impeding flood flows, dam inundation, and mudflow hazards. Additionally, impacts related to water quality standards, groundwater supplies, erosion, and flooding would be cumulatively considerable prior to mitigation.

## 2.8.6 Mitigation

### *2.8.6.1 Issue 1: Water Quality Standards and Requirements*

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impacts associated with water quality standards and requirements. However, even with mitigation measures in place, the development of future land uses as designated in the proposed General Plan Update would propose land uses in areas that are currently experiencing groundwater contamination, thereby exacerbating water quality impacts. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with water quality standards and requirements; however, not to below a significant level. Additional mitigation measures have been identified that would fully reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts to water quality standards and requirements to below a level of significance. However, the County has

determined that these measures would be infeasible as described below; therefore, these mitigation measures would not be implemented.

- Provide a water treatment system that reduces constituents to below the MCL in all groundwater impaired areas. This measure would require treatment plants in many areas of the County, which would potentially result in numerous environmental impacts and conflict with the project objective to minimize public costs and infrastructure.

- In groundwater quality impaired areas, require water to be imported from other sources. This measure would not be feasible based on the existing lack of infrastructure needed to import water to impaired areas. To provide such infrastructure would conflict with the project objectives to minimize public costs of infrastructure and services and correlate their timing with new development.

- In groundwater quality impaired areas, place a moratorium on building permits and development applications. This measure would be inconsistent with the land use designations proposed for the project. It would also conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with water quality standards and requirements as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with water quality, although not to below a significant level.

**Policy LU-6.5: Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development (LID) techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

**Policy LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

**Policy LU-14.1: Wastewater Facility Plans.** Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans.

**Policy LU-14.2: Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

**Policy LU-14.3: Wastewater Treatment Facilities.** Require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency. Coordinate the planning and design of such facilities with the appropriate agency to be consistent with applicable sewer master plans.

**Policy LU-14.4: Sewer Facilities.** Prohibit sewer facilities that would induce unplanned growth. Require sewer systems to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive, except:

- When necessary for public health, safety, or welfare;
- When within existing sewer district boundaries;
- When necessary for a conservation subdivision adjacent to existing sewer facilities; or
- Where specifically allowed in the Community Plan.

**Policy COS-4.2: Drought-Efficient Landscaping.** Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.

**Policy COS-4.3: Stormwater Filtration.** Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

**Policy COS-4.4: Groundwater Contamination.** Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.

**Policy COS-5.2: Impervious Surfaces. Impervious Surfaces.** Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

**Policy COS-5.3: Downslope Protection.** Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.

**Policy COS-5.5**: **Impacts of Development to Water Quality.** Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with water quality, although not to below a significant level.

**Hyd-1.1** Update and implement the County of San Diego's Jurisdictional Urban Runoff Management Program (JURMP).

**Hyd-1.2** Implement and revise as necessary the Watershed Protection Ordinance to reduce the adverse effects of polluted runoff discharges on waters and to encourage the removal of invasive species and restore natural drainage systems.

**Hyd-1.3** Establish and implement LID standards for new development to minimize runoff and maximize infiltration.

**Hyd-1.4** Revise and implement the Stormwater Standards Manual requiring appropriate measures for land use with a high potential to contaminate surface water or groundwater resources.

**Hyd-1.5** Utilize the County Guidelines for Determining Significance for Surface Water Quality, Hydrology, and Groundwater Resources to identify adverse environmental effects.

**Hyd-1.6** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water and sanitation districts.

**Hyd-1.7** Ensure County planning staff participation in the review of wastewater facility long range and capital improvement plans.

**Hyd-1.8** Allow wastewater facilities contingent upon approval of Major Use Permit to ensure facilities are adequately sized.

**Hyd-1.9** Review septic system design, construction, and maintenance in cooperation with the Regional Water Quality Control Board through the Septic Tank Permit Process.

**Hyd-1.10** Coordinate with the State Water Resources Control Board to develop statewide performance and design standards for conventional and alternative On-site Wastewater Treatment Systems.

### *2.8.6.2 Issue 2: Groundwater Supplies and Recharge*

The General Plan Update policies and mitigation measures provided below would minimize the proposed project's potentially significant impact associated with the loss of groundwater supplies and recharge. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in these areas currently experiencing groundwater supply and recharge impacts, thereby worsening an already unsustainable groundwater supply. The General Plan Update policies and feasible mitigation

measures described below would be implemented to reduce impacts associated with groundwater supplies and recharge; however, not to below a significant level. Additional mitigation measures have been identified that would fully reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts to groundwater supplies and recharge to below a level of significance. However, the County has determined that these measures would be infeasible as described below; therefore, these mitigation measures would not be implemented.

- In areas with potentially impacted groundwater supplies, require all proposed discretionary projects to share well water through a well sharing agreement. This mitigation measure would prove infeasible or enforceable because such agreements would only apply to current landowners and would not be binding on future owners of the affected properties.

- In areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with other groundwater providers to import water through the construction of new infrastructure from another groundwater basin that is not impacted, prior to the issuance of discretionary permits. This mitigation measure is considered to be infeasible because piping in groundwater from an off-site source would be a complex and costly process which would involve any number of issues, including: 1) water rights issues; 2) need to obtain proper permits to encroach on public roadways or other private properties to convey the water; 3) potential need to the create a new water district/water company; and 4) accelerated deterioration of the groundwater basin that is providing the imported water. Additionally, requiring complex piping to import groundwater from an alternative location has the potential to result in multiple secondary environmental impacts, including cultural resources, biological resources, and hydrology/water quality. Although some water districts within the unincorporated County have imported water from another groundwater basin in the past, requiring that all development obtain water contracts, as described above, would put an undue burden on both the developer and water district. Implementing this mitigation measure would also contradict the proposed General Plan Update objective to promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance because it would result in multiple secondary environmental impacts to both unincorporated County groundwater and surface resources. In addition, this solution may not be sustainable for all projects in the long-term. Implementation of this mitigation measure would also conflict with the project objective to minimize costs of infrastructure and services because this mitigation measure would require extensive infrastructure costs to implement. Therefore, for the reasons listed above, this measure is considered infeasible.

- In groundwater dependent areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with other water providers to truck in water from local water districts or other sources such as an off-site well, prior to

the issuance of discretionary permits. This mitigation measure is considered to be infeasible because trucked water is not a guaranteed, sustainable, long-term source of water since a water district can rescind or preclude the selling of trucked water in times of drought and limited water supplies. Additionally, implementation of this mitigation measure would conflict with the project objective to maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change because it would require extensive vehicle travel and is not a sustainable solution. Therefore, this would not be a feasible mitigation measure.

- In groundwater dependent areas with inadequate groundwater supply, project proponents shall be required to secure water contracts with the SDCWA in order to import water from SDCWA facilities. This mitigation measure is considered to be infeasible due to the lack of infrastructure in place to convey the water, the limited availability of water within the desert southwest, the cost of providing these services, and the discretionary approval to extend the SDCWA boundary, which is outside of the County's jurisdiction. Implementation of this mitigation measure would also conflict with the project objective to minimize costs of infrastructure and services because the implementation of this mitigation measure would result in extensive infrastructure costs.

- Implement a Countywide moratorium on building permits and development applications in any areas of the County that would have the potential to adversely impact groundwater supplies and recharge. This would effectively result in no new impacts to groundwater supplies and recharge within the unincorporated County. However, due to the size and complexity of the groundwater dependent portion of the County, it is not possible to specifically identify at a parcel by parcel scale where significant impacts to groundwater resources would occur. Site-specific groundwater investigations are necessary to provide details of impacts that cannot be provided at the scale in which the General Plan Update Groundwater Study was conducted. Therefore, there is not enough technical evidence in which to impose a moratorium. Additionally, this measure would impede the County's ability to implement the General Plan Update because it would prohibit future development in areas identified for increased growth in the General Plan Update. This mitigation measure would also conflict with the project objective to support a reasonable share of projected regional population growth. Therefore, for the reasons listed above, this mitigation measure would not be implemented.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with groundwater supply and recharge as compared to the proposed project.

**General Plan Update Policies**

The policies listed under Section 2.8.6.1 for Issue 1 are applicable to groundwater supplies and recharge and are incorporated here by reference. In addition, the following policies would reduce impacts associated with groundwater supplies and recharge, although not to below a significant level.

**Policy LU-8.1: Density Relationship to Groundwater Sustainability.** Require land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.

**Policy LU-8.2: Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:

- In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.
- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

**Policy LU-13.1: Adequacy of Water Supply.** Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.

**Policy LU-13.2: Commitment of Water Supply.** Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

**Policy COS-4.1: Water Conservation.** Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.

**Mitigation Measures**

Mitigation measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, and Hyd-1.5 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would reduce impacts associated with groundwater supplies and recharge, although not to below a significant level.

**Hyd-2.1** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available water districts. Also implement and revise as necessary Board Policy G-15 to conserve water at County facilities.

**Hyd-2.2** Implement the Groundwater Ordinance to balance groundwater resources with new development. Also revise the Ordinance Relating to Water Conservation for Landscaping (currently Zoning Ordinance Sections 6712 through 6725) to further water conservation through the use of recycled water.

**Hyd-2.3** Establish a water credits program between the County and the Borrego Water District to provide a streamlined and consistent process for the permanent cessation of outdoor water intensive uses such as irrigated agricultural or golf course land.

**Hyd-2.4** Coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and implementation and enhancement of water conservation programs.

**Hyd-2.5** Implement and revise as necessary the Resource Protection Ordinance and Policy I-68 Proposed Projects in Flood Plains / Floodways to restrict development in flood plains / floodways.

### *2.8.6.3 Issue 3: Erosion or Siltation*

The policies listed under Section 2.8.6.1 for Issue 1 are applicable to erosion or siltation and are incorporated here by reference. In addition, the mitigation measures below would mitigate the proposed project's direct and cumulative impacts related to erosion or siltation to below a level of significance.

**Mitigation Measures**

Mitigation measures Hyd-1.2, Hyd-1.3, and Hyd-1.5 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with erosion and siltation to below a level of significance.

**Hyd-3.1** Implement and revise, as necessary, ordinances to require new development to be located down and away from ridgelines, conform to the natural topography, not significantly alter dominant physical characteristics of the site, and maximize natural drainage and topography when conveying stormwater.

**Hyd-3.2** Implement and revise as necessary the RPO to limit development on steep slopes. Also incorporate Board Policy I-73, the Hillside Development Policy, into the RPO to the extent that it will allow for one comprehensive approach to steep-slope protections.

**Hyd-3.3** Implement the Grading, Clearing and Watercourses Ordinance to protect development sites against erosion and instability.

### *2.8.6.4 Issue 4: Flooding*

The following General Plan Update policies and mitigation measures would mitigate the proposed project's direct and cumulative impacts related to flooding to below a level of significance.

**General Plan Update Policies**

**Policy LU-6.5: Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development (LID) techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

**Policy LU-6.10: Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

**Policy S-9.2**: **Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal flood proofing standards and siting criteria to prevent flow obstruction.

**Policy S-10.2: Use of Natural Channels.** Require the use of natural channels for County flood control facilities except where necessary to protect existing structures from a current flooding problem and where natural channel use is deemed infeasible. The alternative must achieve the same level of biological and other environmental protection, such as water quality, hydrology, and public safety.

**Policy S-10.3: Flood Control Facilities.** Require flood control facilities to be adequately sized, constructed, and maintained to operate effectively.

**Policy S-10.4: Stormwater Management.** Require development to incorporate low impact design, hydromodification management, and other measures to minimize stormwater impacts on drainage and flood control facilities.

**Policy S-10.6: Stormwater Hydrology.** Ensure development avoids diverting drainages, increasing velocities, and altering flow rates to off-site areas to minimize adverse impacts to the area's existing hydrology.

**General Plan Update Mitigation Measures**

Mitigation measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, and Hyd-2.5 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with flooding.

**Hyd-4.1** Implement the Flood Damage Prevention Ordinance to reduce flood losses in specified areas.

**Hyd-4.2** Implement the Grading, Clearing and Watercourses Ordinance to limit activities affecting watercourses.

**Hyd-4.3** Implement and revise as necessary Board Policies such as: Policy I-68, which establishes procedures for projects that impact floodways; Policy I-45, which defines watercourses that are subject to flood control; and Policy I-56, which permits, and establishes criteria for, staged construction of off-site flood control and drainage facilities by the private sector when there is a demonstrated and substantial public, private or environmental benefit.

### *2.8.6.5 Issue 5: Exceed Capacity of Stormwater Systems*

The policies listed under Section 2.8.6.1 for Issue 1 and Section 2.8.6.4 for Issue 4 are applicable to the exceedance of stormwater system capacity and are incorporated here by

reference. In addition, the following General Plan Update policy and mitigation measures would mitigate proposed project direct and cumulative impacts related to the exceedance of stormwater system capacity to below a level of significance.

**General Plan Update Policies**

**Policy S-10.5: Development Site Improvements.** Require development to provide necessary on-site and off-site improvements to stormwater runoff and drainage facilities.

**General Plan Update Mitigation Measures**

Mitigation Measures Hyd-1.1, Hyd-1.2, Hyd-1.3, Hyd-1.4, Hyd-1.5, Hyd-2.5, Hyd-3.1, Hyd-4.1, Hyd-4.2, and Hyd-4.3 as described above are applicable to this issue of stormwater systems and are incorporated here by reference.

### *2.8.6.6 Issue 6: Housing within a 100-year Flood Hazard Area*

The following General Plan Update policies and mitigation measures would mitigate the proposed project's direct and cumulative impacts related to housing within a 100-year flood hazard area to below a level of significance.

**General Plan Update Policies**

**Policy LU-6.12: Flooding:** Document and annually review areas within floodways and 100- and 200-year floodplains to ensure areas subject to flooding are accurately mapped in accordance with AB 162 (enacted January 1, 2008).

**Policy COS-5.1: Impact to Floodways and Floodplains.** Restrict development in floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element.

**Policy S-9.1: Floodplain Maps.** Manage development based on federal floodplain maps. County maps shall also be referred to and in case of conflict(s) between the County flood plain maps and the federal floodplain maps, the more stringent of restrictions shall apply.

**Policy S-9.2: Development in Floodplains.** Limit development in designated floodplains to decrease the potential for property damage and loss of life from flooding and to avoid the need for engineered channels, channel improvements, and other flood control facilities. Require development to conform to federal flood proofing standards and siting criteria to prevent flow obstruction.

**Policy S-9.3: Development in Flood Hazard Areas.** Require development within mapped flood hazard areas be sited and designed to minimize on-site and off-site hazards to health, safety, and property due to flooding.

**Policy S-9.4: Development in Villages.** Allow new uses and development within the floodplain fringe (land within the floodplain outside of the floodway) only when environmental impacts and hazards are mitigated. This policy does not apply to floodplains with unmapped floodways. Require land available outside the floodplain to be fully utilized before locating development within a floodplain. Development within a floodplain may be denied if it will cause

significant adverse environmental impacts or is prohibited in the community plan. Channelization of floodplains is allowed within villages only when specifically addressed in community plans.

**Policy S-9.5: Development in the Floodplain Fringe**. Prohibit development in the floodplain fringe when located on Semi-Rural and Rural Lands to maintain the capacity of the floodplain. For parcels located entirely within a floodplain or without sufficient space for a building pad outside the floodplain, development is limited to a single family home on an existing lot or those uses that do not compromise the environmental attributes of the floodplain or require further channelization.

**Policy S-10.1: Land Uses within Floodways.** Limit new or expanded uses in floodways to agricultural, recreational, and other such low-intensity uses and those that do not result in any increase in flood levels during the occurrence of the base flood discharge, do not include habitable structures, and do not substantially harm, and fully offset, the environmental values of the floodway area. This policy does not apply to minor renovation projects, improvements required to remedy an existing flooding problem, legal sand or gravel mining activities, or public infrastructure.

**General Plan Update Mitigation Measures**

Mitigation Measures Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, and Hyd-4.2 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measure would further reduce impacts associated with placement of housing within a 100-year flood hazard area.

**Hyd-6.1** Implement the RPO to prohibit development of permanent structures for human habitation or employment in a floodway and require planning of hillside developments to minimize potential soil, geological and drainage problems.

### *2.8.6.7 Issue 7: Impeding or Redirecting Flood Flows*

The policies listed under Section 2.8.6.6 for Issue 6 are applicable to impeding or redirecting flood flows and are incorporated here by reference. In addition, the following General Plan Update policies and mitigation measures would mitigate proposed project direct and cumulative impacts related to impeding or redirecting flood flows to below a level of significance.

**General Plan Update Policies**

**Policy LU-6.12: Flooding.** Document and annually review areas within floodways and 100- and 200-year floodplains to ensure areas subject to flooding are accurately mapped in accordance with AB 162 (enacted January 1, 2008).

**Policy COS-5.1: Impact to Floodways and Floodplains.** Restrict development in floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element.

**General Plan Update Mitigation Measures**

Mitigation measures Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, Hyd-4.3, and Hyd-6.1 as described above are applicable to the issue of impeding or redirecting flood flows and are incorporated here by reference.

### *2.8.6.8 Issue 8: Dam Inundation and Flood Hazards*

The policies listed under Section 2.8.6.6 for Issue 6 are applicable to dam inundation and flood hazards and are incorporated here by reference. In addition, the following General Plan Update policy and mitigation measures would mitigate proposed project direct and cumulative impacts related to dam inundation and flood hazards to below a level of significance.

**General Plan Update Policy**

**Policy S-9.6: Development in Dam Inundation Areas**. Prohibit development in dam inundation areas that may interfere with the County's emergency response and evacuation plans.

**General Plan Mitigation Measures**

Mitigation measures Hyd-1.2, Hyd-1.5, Hyd-2.5, Hyd-4.1, Hyd-4.2, Hyd-4.3, and Hyd-6.1 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with dam inundation and flood hazards.

**Hyd-8.1** Perform regular inspections and maintenance of County reservoirs to prevent dam failure.

**Hyd-8.2** Review discretionary projects for dam inundation hazards through application of the County's Guidelines for Determining Significance for Hydrology and Guidelines for Determining Significance for Emergency Response Plans.

### *2.8.6.9 Issue 9: Seiche, Tsunami and Mudflow Hazards*

The following General Plan Update policies and mitigation measures would mitigate proposed project direct and cumulative impacts related to seiches, tsunamis and mudflows to below a level of significance.

**General Plan Update Policies**

**Policy COS-5.1: Impact to Floodways and Floodplains.** Restrict development in floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element.

**Policy S-8.1: Landslide Risks.** Direct development away from areas with high landslide, mudslide, or rock fall potential when engineering solutions have been determined by the County to be infeasible.

**Policy S-8.2: Risk of Slope Instability.** Prohibit development from causing or contributing to slope instability.

**Policy S-9.3: Development in Flood Hazard Areas.** Require development within mapped flood hazard areas be sited and designed to minimize on-site and off-site hazards to health, safety, and property due to flooding.

**Policy S-9.6: Development in Dam Inundation Areas**. Prohibit development in dam inundation areas that may interfere with the County's emergency response and evacuation plans.

**General Plan Mitigation Measures**

Mitigation measures Hyd-3.1, Hyd-3.2, and Hyd-3.3 as described above are applicable to the issue of seiche, tsunami and mudflow hazards and are incorporated here by reference.

## 2.8.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would remain after mitigation measures are implemented.

### *2.8.7.1 Issue 1: Water Quality Standards and Requirements*

Implementation of the proposed General Plan Update would contribute to surface water quality contaminants and would place land uses in groundwater quality impaired areas, which would result in potentially significant impacts to water quality standards and requirements. Therefore, the proposed project would result in a potentially significant direct impact. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with groundwater quality would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with groundwater quality standards and requirements.

### *2.8.7.2 Issue 2: Groundwater Supplies and Recharge*

At full build-out of land uses designated in the proposed General Plan Update, groundwater supply and recharge impacts would occur in: 1) areas that experience a 50 percent reduction of groundwater in storage; 2) areas that may be currently impacted by the combined drawdown of existing wells; 3) areas that experience a high frequency of low well yield; and 4) Borrego Valley. Therefore, the proposed project would result in a potentially significant impact. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, the proposed project impact would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with groundwater supplies and recharge.

### 2.8.7.3 Issue 3: Erosion or Siltation

Implementation of the General Plan Update would result in increased runoff that has the potential to cause new erosion or worsen existing erosion problems. Therefore, the proposed project would result in a potentially significant impact. Additionally, the proposed project would result in a potentially significant cumulative impact associated with erosion or siltation. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate the proposed project's direct and cumulative impacts to below a level of significance.

### 2.8.7.4 Issue 4: Flooding

Implementation of the General Plan Update would convert permeable surfaces to impermeable surfaces, which have the potential to result in flooding on or off site. Therefore, the proposed project would result in a potentially significant impact. Additionally, the proposed project would result in a potentially significant cumulative impact associated with flooding. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate the proposed project's direct and cumulative impacts to below a level of significance.

### 2.8.7.5 Issue 5: Exceed Capacity of Stormwater Systems

Implementation of the proposed General Plan Update would exceed the capacity of existing stormwater drainage facilities. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts to below a level of significance. With implementation of mitigation, the proposed project would not contribute to a significant cumulative impact associated with the capacity of stormwater systems.

### 2.8.7.6 Issue 6: Housing within a 100-year Flood Hazard Area

Implementation of the proposed General Plan Update would include land designated for residential land use within a 100-year flood plain. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts to below a level of significance. With implementation of mitigation, the proposed project would not contribute to a significant cumulative impact associated with housing within a flood hazard area.

### 2.8.7.7 Issue 7: Impeding or Redirecting Flood Flows

Implementation of the General Plan Update would impede or redirect flood flows. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts to below a level of significance. With implementation of mitigation, the proposed project would not contribute to a significant cumulative impact associated with impeding or redirecting flood flows.

### *2.8.7.8 Issue 8: Dam Inundation and Flood Hazards*

Implementation of the proposed General Plan Update would result in inundation risk associated with dam failure. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts to below a level of significance. With implementation of mitigation, the proposed project would not contribute to a significant cumulative impact associated with dam inundation and flood hazards.

### *2.8.7.9 Issue 9: Seiche, Tsunami and Mudflow Hazards*

Implementation of the proposed General Plan Update would result in an increased risk of exposing people or structures to damage in the event of a mudflow. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts to below a level of significance. With implementation of mitigation, the proposed project would not contribute to a significant cumulative impact associated with seiche, tsunami, and mudflow hazards.

## Table 2.8-1. Water Bodies Identified as Impaired under the Clean Water Act

| Watershed Management Area | Water Body Name | Pollutant/Stressor |
|---|---|---|
| San Juan WMA | Pacific Ocean, Aliso | Elevated coliform bacteria levels |
| | Laguna | Elevated coliform bacteria levels |
| | Dana Point | Elevated coliform bacteria levels |
| | Lower San Juan Creek, Mouth | Elevated coliform bacteria levels |
| | Aliso Creek | Elevated coliform bacteria levels |
| | Lower San Juan Creek | Elevated coliform bacteria levels |
| Santa Margarita Watershed | Santa Margarita Lagoon | Eutrophic |
| | De Luz Creek | Iron, Manganese |
| | Rainbow Creek | Iron, Sulfates, Total Dissolved Solids (TDS) |
| | Upper Santa Margarita River | Phosphorus |
| | Sandia Creek | Nitrogen, Phosphorus, TDS |
| | Temecula Creek | Nitrogen, Phosphorus, TDS |
| | Murrieta Creek | Iron, Manganese, Nitrogen, Phosphorus |
| | Long Canyon Creek | TDS |
| San Luis Rey WMA | Pacific Ocean Shoreline | Indicator Bacteria |
| | San Luis Rey River | Chloride, TDS |
| | Guajome Lake | Eutrophic |
| Carlsbad WMA | Pacific Ocean Shoreline | Bacterial Indicators |
| | Loma Alta Slough | Bacterial Indicators, Eutrophic |
| | Buena Vista Lagoon (202 acres) | Bacterial Indicators, Nutrients, Sedimentation/Siltation |
| | Buena Vista Creek | Sediment toxicity |
| | Pacific Ocean Shoreline | Bacterial Indicators |
| | Aqua Hedionda Lagoon (7 acres) | Bacterial Indicators, Sedimentation/Siltation |
| | Agua Hedionda Creek | TDS, Manganese, Selenium, Sulfates |
| | Lake San Marcos | Ammonia as Nitrogen, Nutrients, Phosphorus |
| | San Marcos Creek | DDE, Phosphorus, Sediment toxicity |
| | Buena Creek | DDT, Nitrate, Phosphate |
| San Dieguito WMA | Pacific Ocean Shoreline | Bacterial Indicators |
| | Green Valley Lake | Sulfates, Chloride, Manganese, PCP |
| | Lake Hodges | Color, Nitrogen, Phosphorus, Turbidity, Manganese, pH |
| | Kit Carson Creek | TDS, PCP |
| | Felicita Creek | TDS, Aluminum |
| | Cloverdale Creek | Phosphorus, TDS |
| | Sutherland Reservoir | Color, Manganese, pH |
| Los Penasquitos WMA | Los Penasquitos Lagoon | Sediment/Siltation |
| | Los Penasquitos Creek | Phosphate, TDS |
| San Diego River Watershed | Famosa Slough and Channel | Eutrophic |
| | Pacific Ocean Shoreline | Bacterial Indicators |
| | Lower San Diego River | Fecal Coliform, Low Dissolved Oxygen, Phosphorus, TDS |
| | Forrester Creek | Fecal Coliform, pH, TDS, Dissolved Oxygen, Phosphorus |
| | El Capitan Lake | Color, Manganese, pH |
| | Murray Reservoir | pH |
| | San Vicente Reservoir | Chloride, Color, Manganese, pH, Sulfates |

**Table 2.8-1 (Continued)**

| Watershed Management Area | Water Body Name | Pollutant/Stressor |
|---|---|---|
| San Diego Bay WMA | San Diego Bay Shoreline, at Harbor Island (West Basin) | Copper |
| | San Diego Bay Shoreline, G St. Pier | Bacterial Indicators |
| | San Diego Bay Shoreline, Near Switzer Creek | Chlordane, Lindane/Hexachlorocyclohexane, PAHs |
| | San Diego Bay Shoreline, Vicinity of B St. and Broadway Piers | Bacterial Indicators, Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, Downtown Anchorage | Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, at Harbor Island (East Basin) | Copper |
| | San Diego Bay Shoreline, at Marriott Marina | Copper |
| | San Diego Bay Shoreline, at America's Cup Harbor | Copper |
| | Chollas Creek | Bacteria Indicators, Copper, Lead, Zinc |
| | San Diego Bay Shoreline, Near Chollas Creek | Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, 32nd St. Navel Station | Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, Between Sampson and 28th Streets | Copper, Mercury, PAHs, PCBs, Zinc |
| | San Diego Bay Shoreline, Near Coronado Bridge | Benthic Community Effects, Sediment Toxicity |
| | San Diego Shoreline, Seventh St. Channel | Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, North of 24th St. Marine Terminal | Benthic Community Effects, Sediment Toxicity |
| | San Diego Bay Shoreline, at Bayside Park (J Street) | Indicator Bacteria |
| | San Diego Bay Shoreline, at Chula Vista Marina | Copper |
| | Sweetwater Reservoir | Dissolved Oxygen |
| | Loveland Reservoir | Aluminum, Manganese, Dissolved Oxygen |
| | Pacific Ocean Shoreline, Imperial Beach Pier | PCBs |
| | San Diego Bay | PCBs |
| | San Diego Bay Shoreline, and Coronado Cays | Copper |
| | San Diego Bay Shoreline, at Glorietta Bay | Copper |
| | Poggi Canyon Creek | DDT |
| | Otay Reservoir, Lower | Color, Iron, Manganese, Nitrogen ammonia (total ammonia), pH (high) |
| Tijuana River Watershed Management Area | Tijuana River | Bacteria Indicators, Euthrophic conditions, Low Dissolved Oxygen, Pesticides, Solids, Synthetic Organics, Trace Elements, Trash |
| | Tijuana River Estuary | Bacteria Indicators, Eutrophic conditions, Lead, Low Dissolved Oxygen, Nickel, Pesticides, Thallium, Trash, Turbidity |
| | Pacific Ocean Shoreline, Tijuana HU | Bacteria Indicators |
| | Barrett Lake | Color, Manganese, pH |
| | Pine Valley Creek (Upper) | Enterococcus, Phosphorus, Turbidity |
| | Morena Reservoir | Color, Manganese, pH |

Source: Weston 2007

## Table 2.8-2. Historic Flood Occurrences in San Diego County

| Location | Date | Property Damage (in millions of dollars) |
|---|---|---|
| **North County Communities** | | |
| Agua Caliente Springs | Aug. 29, 2000<br>Feb. 22, 2004 | 0<br>.010 |
| Rancho Santa Fe | Jan. 10. 1995 | 5,000 |
| Rincon | June 21, 2000 | .006 |
| Valley Center | Feb. 18, 2004<br>Feb. 26, 2004<br>Mar. 2, 2004 | 0.030<br>0.035<br>0.020 |
| Warner Springs | Aug. 8, 1998<br>July 11, 1999<br>Aug. 22, 2003 | 0<br>.005<br>.060 |
| **East County Communities** | | |
| Alpine | Aug. 20, 2003 | 0 |
| Crest | March 2, 2004 | .060 |
| Lakeside | March 2, 2004 | .080 |
| Ramona | Feb. 18, 2004<br>April 2, 2004 | 0<br>.045 |
| **Backcountry Communities** | | |
| Borrego Springs | July 28, 1999<br>Aug. 29, 2000<br>Aug. 1, 2003<br>Aug. 27, 2003<br>March 3, 2004 | .100<br>1,000<br>.150<br>.010<br>.010 |
| Campo | Aug. 25, 2000<br>Aug. 27, 2003<br>Sep. 4, 2003 | 0<br>.012<br>.020 |
| Jacumba | Aug. 14, 2003 | .150 |
| Julian | Aug. 19, 1999<br>Sep. 2, 2001<br>Aug. 25, 2003 | .010<br>0<br>.030 |
| Mt Laguna | July 15, 2002<br>Aug. 14, 2003<br>Feb. 22, 2004 | 0<br>0<br>.070 |
| Ocotillo Wells | Aug. 17, 2000 | .030 |
| Palomar Mountain | Aug. 24, 2000<br>Sep. 5, 2003 | 0<br>0 |
| Pine Valley | Aug. 25, 2000<br>Aug. 24, 2003<br>Aug. 27, 2003<br>Sep. 4, 2003 | .020<br>.010<br>.030<br>.030 |
| Santa Ysabel | Aug. 21, 2003<br>Sep. 2, 2003<br>Sep. 4, 2003<br>Sep. 4, 2003 | .050<br>.050<br><br>.060 |
| West Portion | Feb. 23, 1998 | 10,300 |
| **Total** | | **$16,301.19** |

Source: FCD 2008

## Table 2.8-3. Tsunami Heights in San Diego

| Year | Height (feet) |
|---|---|
| 1952 | 2.3 |
| 1957 | 1.5 |
| 1960 | 4.6 |
| 1964 | 3.7 |

Source: URS 2004

## Table 2.8-4. Dam Inundation Areas Affecting the Unincorporated County

| Dam | CPAs Affected | Inundation Acreage | Existing Use |
|---|---|---|---|
| Agua Tibia | North Mtn., Pala-Pauma | 491 | Open space, agriculture |
| Barrett Dam | Jamul-Dulzura | 6,157 | Vacant |
| Blossom Valley Reservoir | Lakeside | 38 | Residential |
| Chet Harritt | Lakeside | 5,780 | Residential, vacant, open space commercial |
| Cuyamaca | Alpine, Central Mtn., Lakeside | 2,736 | Parks, vacant, some residential |
| Dixon | NC Metro, San Dieguito | 4,115 | Agricultural, residential, parks |
| El Capitan | Alpine, Lakeside | 3,447 | Residential, commercial, parks |
| Henshaw | Bonsall, Fallbrook, North Mtn., Pala-Pauma, Pendleton/De Luz, Valley Center | 12,176 | Agricultural, vacant lands, open space |
| Lake Hodges | DEL MAR | 0 | |
| Lake Hodges | SAN DIEGO | 8 | |
| Lake Hodges | San Dieguito | 4 | |
| Lake Hodges | San Dieguito | 12 | Residential, commercial, agricultural |
| Lake Loveland | Alpine, County Islands, Crest-Dehesa, Jamul-Dulzura, Spring Valley, Sweetwater, Valle de Oro | 6,992 | Parks, Vacant |
| Lake Skinner | Fallbrook, Pendleton/De Luz | 201 | Other |
| Lake Skinner Finished Water Reservoir | Fallbrook, Pendleton/De Luz | 259 | Other |
| Lake Wohlford | NC Metro, San Dieguito | 545 | Vacant, residential |
| Morena Overtopping Barrett | Jamul-Dulzura, Mtn. Empire | 1,268 | Parks, vacant |
| Olivenhain Reservoir | San Dieguito | 200 | |
| Palo Verde | Alpine | 62 | Open Space/Vacant |
| Pechstein | NC Metro | 478 | Residential , parks |
| Ramona | Ramona | 153 | Vacant, parks |
| Red Mountain Reservoir | Fallbrook | 294 | Agricultural, residential, vacant |
| San Dieguito | San Dieguito | 465 | Residential, agricultural |

**Table 2.8-4 (Continued)**

| Dam | CPAs Affected | Inundation Acreage | Existing Use |
|---|---|---|---|
| San Marcos 848 | NC Metro | 336 | Parks |
| San Marcos 854 | NC Metro | 780 | Residential |
| San Vicente | Lakeside | 1,582 | Vacant, parks, residential |
| Stehly Dam – Lower | Bonsall, Fallbrook, Valley Center | 128 | Agricultural/Vacant |
| Stehly Dam – Upper | Valley Center | 131 | Agricultural, Vacant |
| Sutherland | NC Metro, North Mtn., Ramona | 136 | Parks, agricultural, vacant |
| Sutherland (Overtopping Hodges) | NC Metro, North Mtn., San Dieguito | 960 | Residential, agricultural |
| Sweetwater | County Islands, Sweetwater | 31 | Residential, parks, commercial recreation |
| Turner | Valley Center, Bonsall, NC Metro, | 776 | Agricultural, parks |
| Upper /Lower Otay | Otay | 4,270 | Parks, industrial, vacant lands |
| Vail | Fallbrook, Pendleton/De Luz | 5,061 | Undeveloped, other |
| **Total** | | **60,060** | |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007e

## Table 2.8-5. Unincorporated Communities with Areas in 100-year Floodplains (in Acres)

| CPA | Acreage | Existing Use |
|---|---|---|
| **North County** | | |
| Bonsall | 1,681 | agriculture, vacant, residential |
| Fallbrook | 1,243 | residential, open space, vacant |
| North Co. Metro | 320 | open space, residential, agricultural |
| Pala-Pauma | 1,969 | agriculture, vacant, open space |
| Pendleton/De Luz | 0 | -- |
| San Dieguito | 1,092 | agriculture, open space, vacant |
| Rainbow | 158 | agriculture, residential |
| Valley Center | 1,134 | agriculture, vacant, residential |
| **Subtotal** | **7,597** | |
| **East County** | | |
| Alpine | 155 | residential |
| County Islands | 4 | residential, vacant |
| Crest-Dehesa | 345 | open space, industrial |
| Jamul-Dulzura | 2,028 | open space, vacant |
| Lakeside | 1,474 | industrial , residential |
| Otay | 0 | vacant |
| Ramona | 627 | agriculture, vacant |
| Spring Valley | 237 | residential |
| Sweetwater | 547 | open space, residential |
| Valle De Oro | 191 | open space |
| **Subtotal** | **5,608** | |
| **Backcountry** | | |
| Central Mountain | 1,029 | agriculture, commercial recreation, parks, undeveloped |
| Desert | 30,349 | residential, agriculture, vacant |
| Julian | 275 | agricultural, residential |
| Mountain Empire | 905 | vacant, agricultural |
| North Mountain | 4,720 | vacant, agriculture, residential |
| **Subtotal** | **37,238** | |
| **Total** | **50,483** | |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007e

## Table 2.8-6. Groundwater Basins Experiencing Significant Impacts in Storage

| Estimated Minimum Groundwater in Storage (Worst Month in a 34-Year Period Analyzed) | | |
|---|---|---|
| **Groundwater Basin** | **Existing (percent)** | **General Plan Update at Buildout (percent)** |
| Ballena | 0 | 0 |
| Barona | 42 | 38 |
| Engineer Springs | 26 | 0 |
| Jamul | 0 | 0 |
| Las Lomas Muertas | 0 | 0 |
| Lee | 36 | 16 |
| Lyon | 78 | 50 |
| Morena South | 37 | 0 |
| Pine South | 63 | 37 |
| San Felipe South | 0 | 0 |
| Spencer | 0 | 0 |

Source: DPLU 2009f

## Table 2.8-7. Land Use Designations within Flood Areas under the proposed General Plan Update

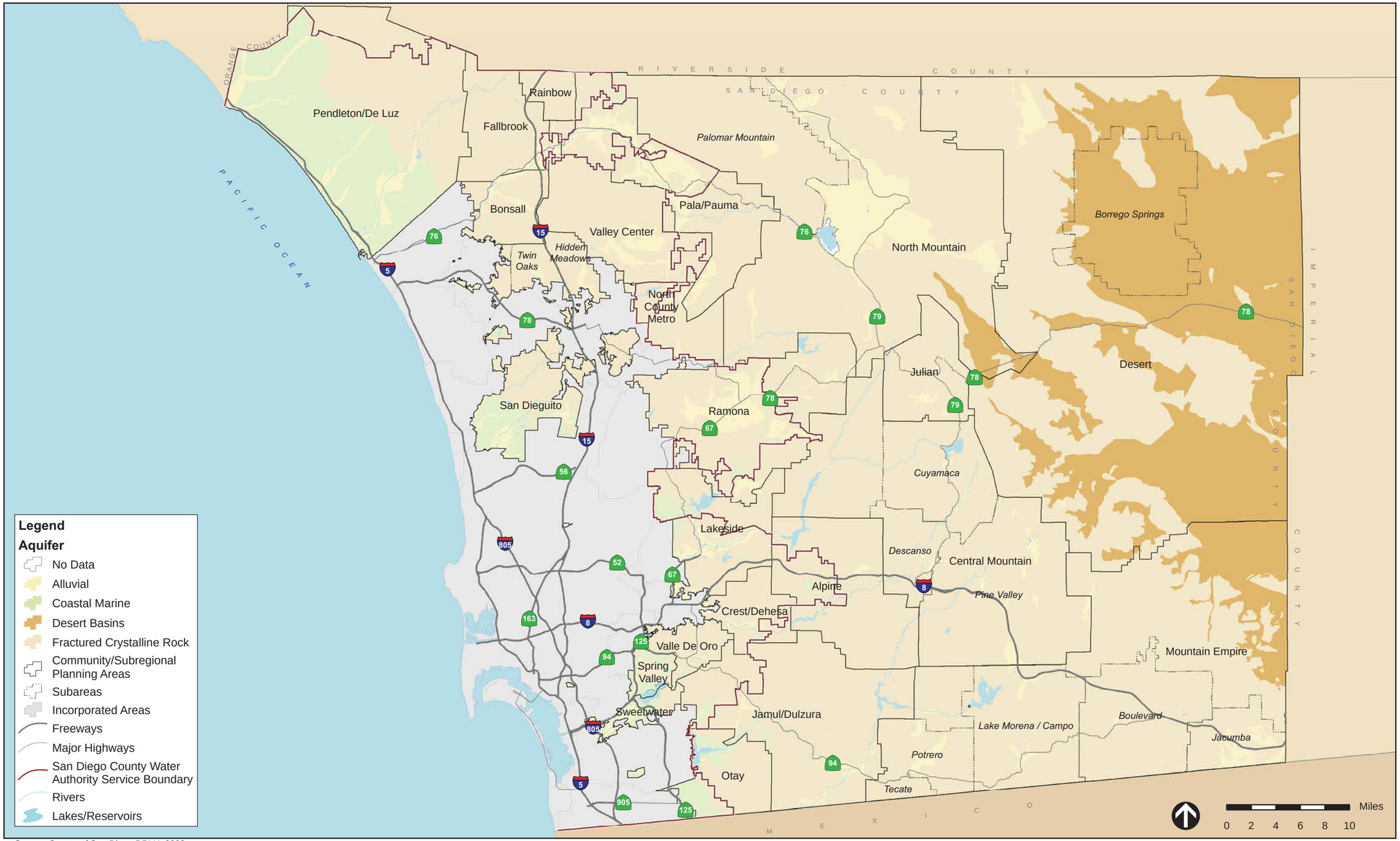
| General Plan Update Land Use Designation | Total Acres located within a Flood Area |
|---|---|
| Village Residential | 2,824 |
| Semi-Rural Residential | 15,282 |
| Rural Lands | 19,925 |
| Specific Plan Area | 2,835 |
| Office Professional | 44 |
| Neighborhood Commercial | 4 |
| General Commercial | 285 |
| Rural Commercial | 347 |
| Limited Impact Industrial | 161 |
| Medium Impact Industrial | 230 |
| High Impact Industrial | 71 |
| Village Core Mixed Use | < 1 |
| Public/Semi-Public Lands | 1,188 |
| National Forest and State Parks | 8,738 |
| Tribal Lands | 433 |
| Open Space | 19,184 |
| Military Installations | 899 |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.8-8. Land Use designations within Dam Inundation Areas under proposed General Plan Update

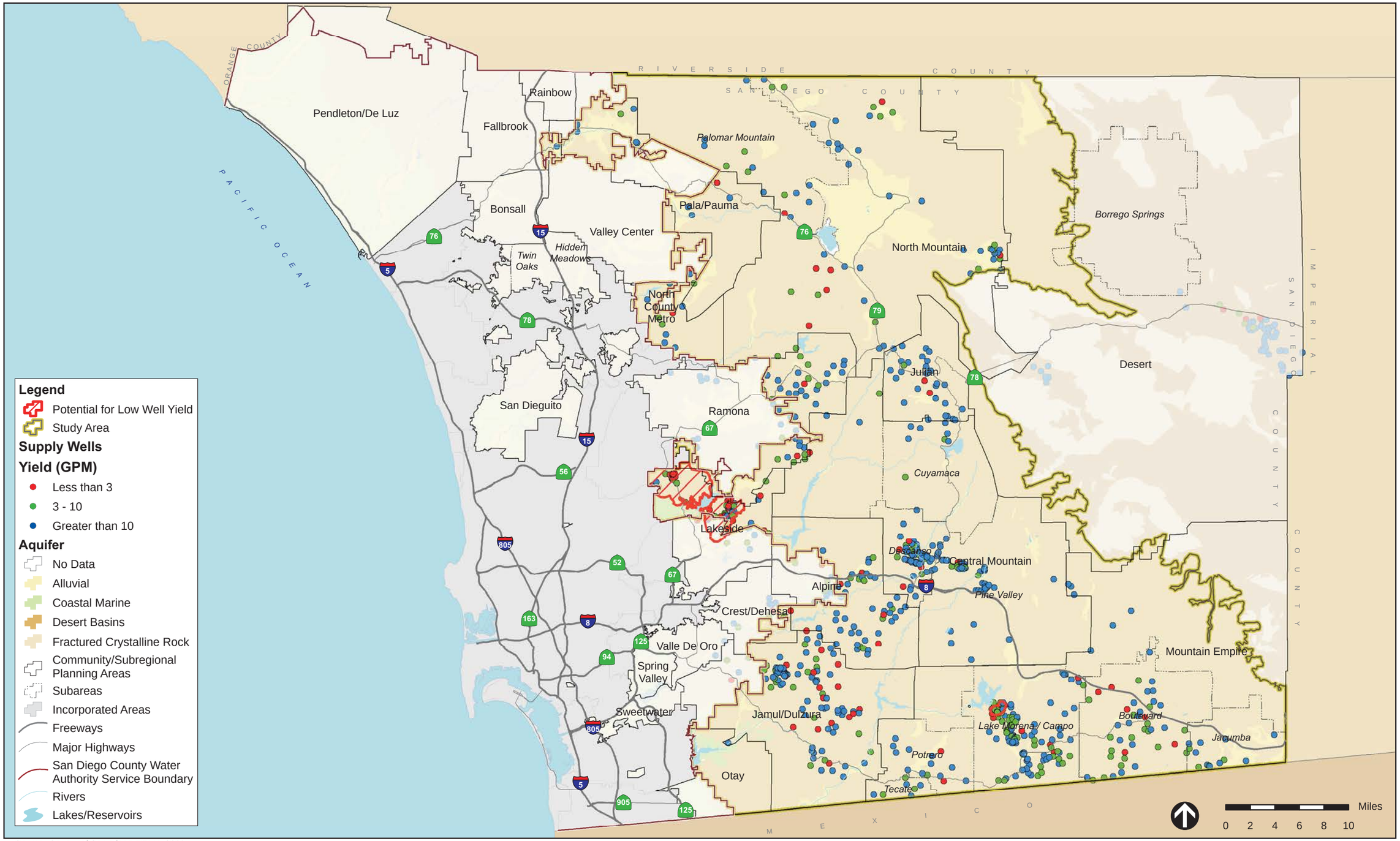
| General Plan Update Land Use Designation | Total Acres located within Dam Inundation Area |
|---|---|
| Village Residential | 2,762 |
| Semi-Rural Residential | 4,961 |
| Rural Lands | 9,942 |
| Specific Plan Area | 4,669 |
| Office Professional | 26 |
| Neighborhood Commercial | 8 |
| General Commercial | 530 |
| Rural Commercial | 20 |
| Limited Impact Industrial | 0 |
| Medium Impact Industrial | 243 |
| High Impact Industrial | 72 |
| Village Core Mixed Use | 0 |
| Public/Semi-Public Lands | 1,733 |
| National Forest and State Parks | 1,673 |
| Tribal Lands | 1,592 |
| Open Space | 13,941 |
| Military Installations | 13,955 |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008



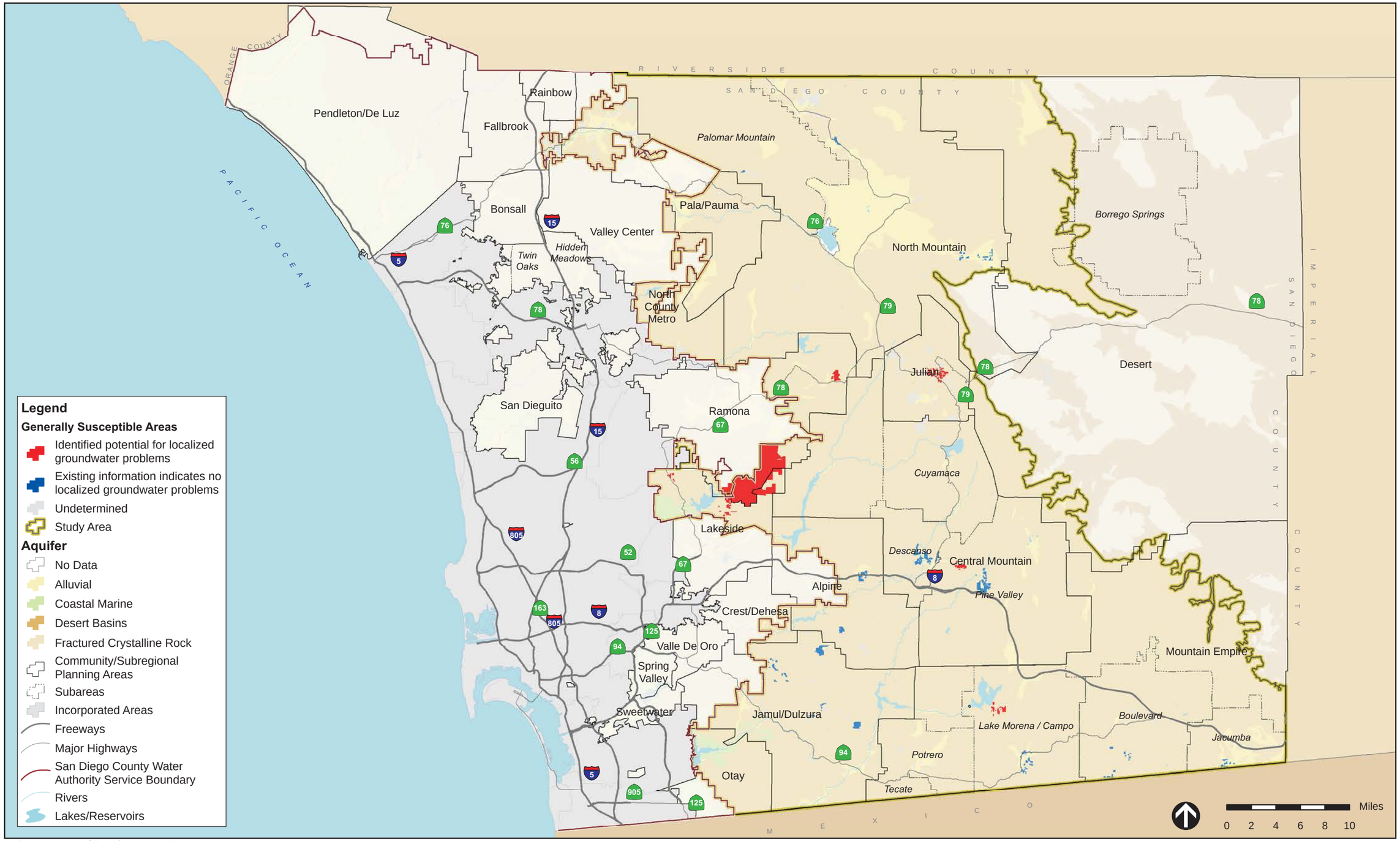

Source: County of San Diego DPLU, 2008

**AQUIFER TYPES WITHIN THE COUNTY** **FIGURE 2.8-1**



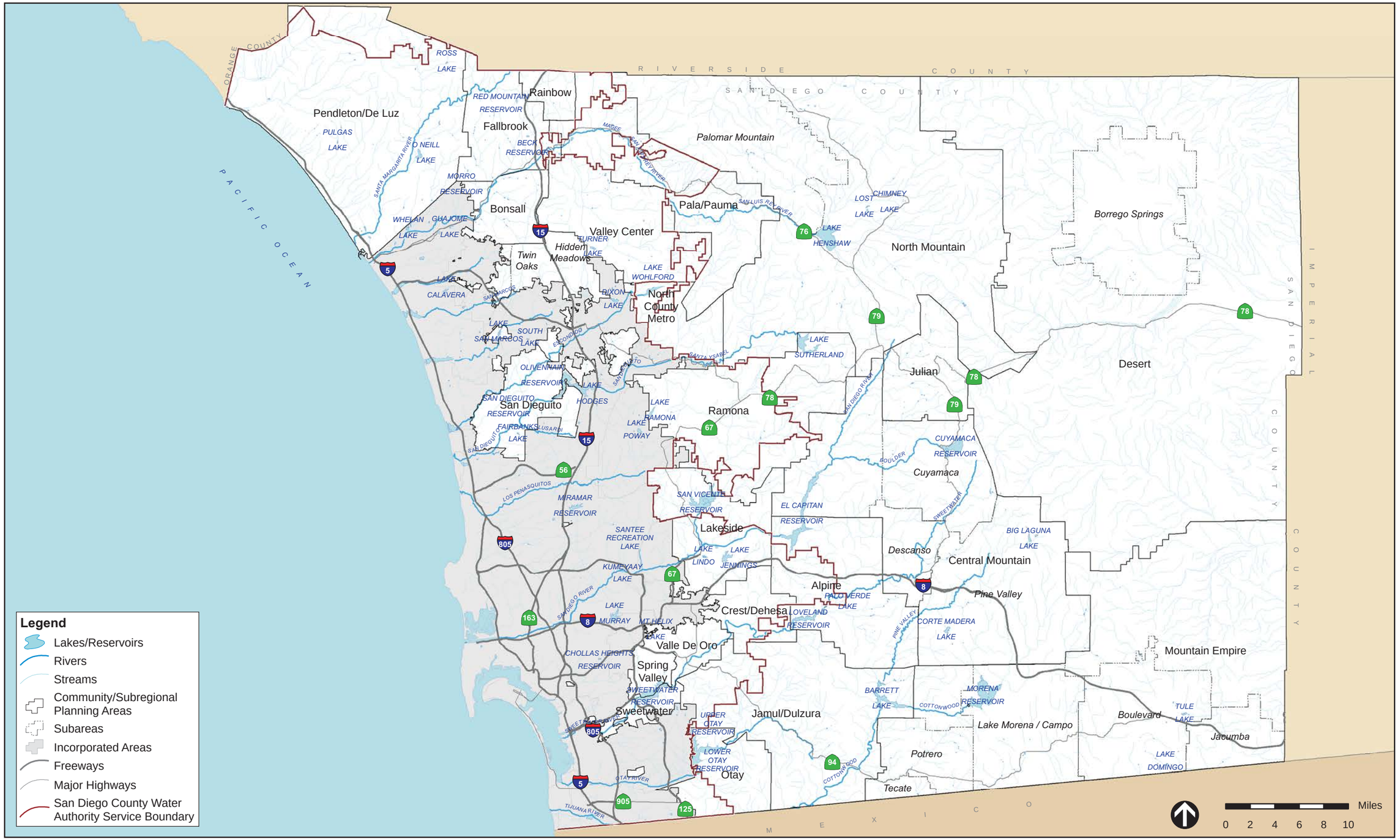

Source: County of San Diego DPLU, 2008

**POTENTIAL FOR LOW WELL YIELD** **FIGURE 2.8-2**

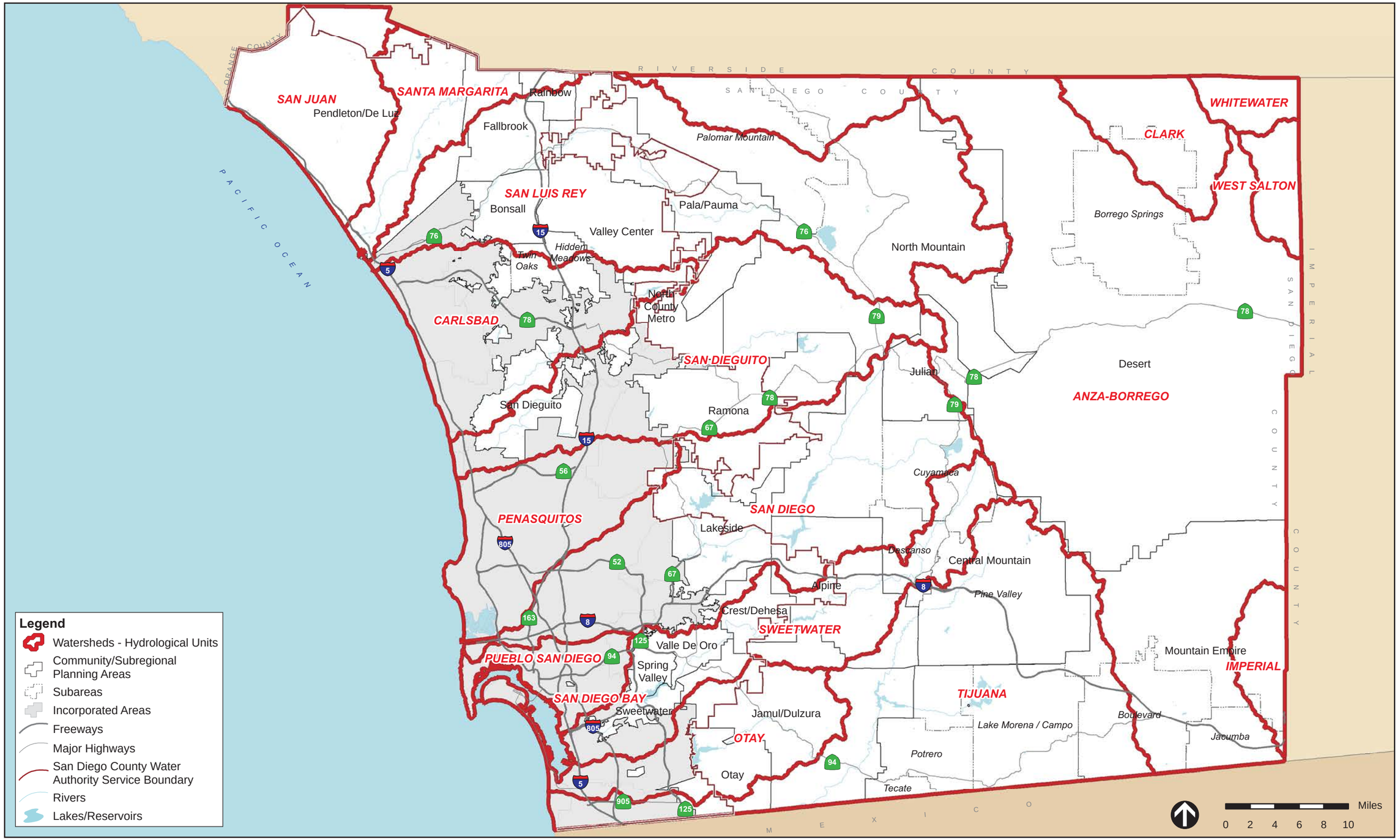



Source: County of San Diego DPLU, 2008

**POTENTIAL IMPACTS FROM LARGE QUANTITY/CLUSTERED GROUNDWATER USERS** **FIGURE 2.8-3**

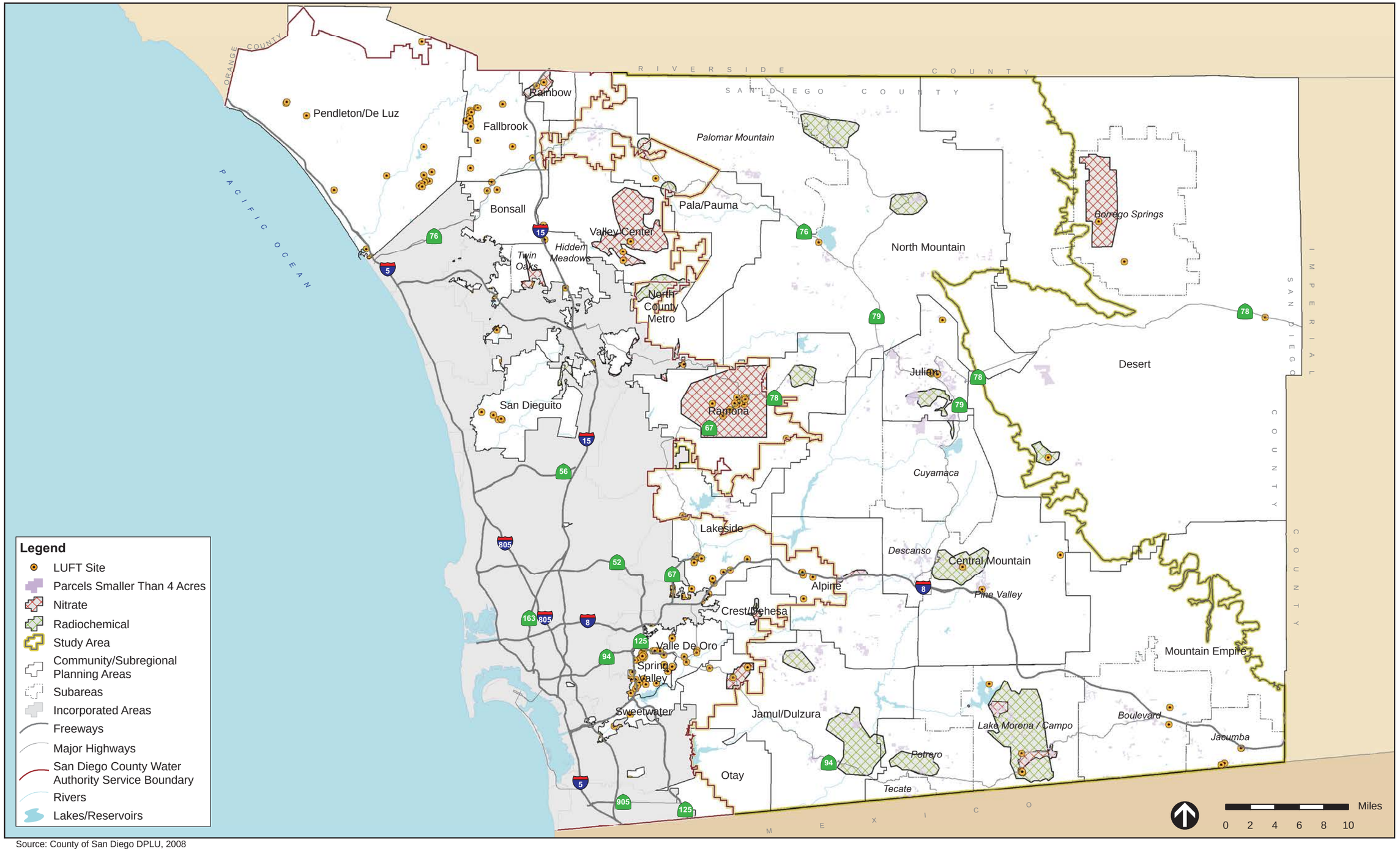



Source: County of San Diego DPLU, 2008

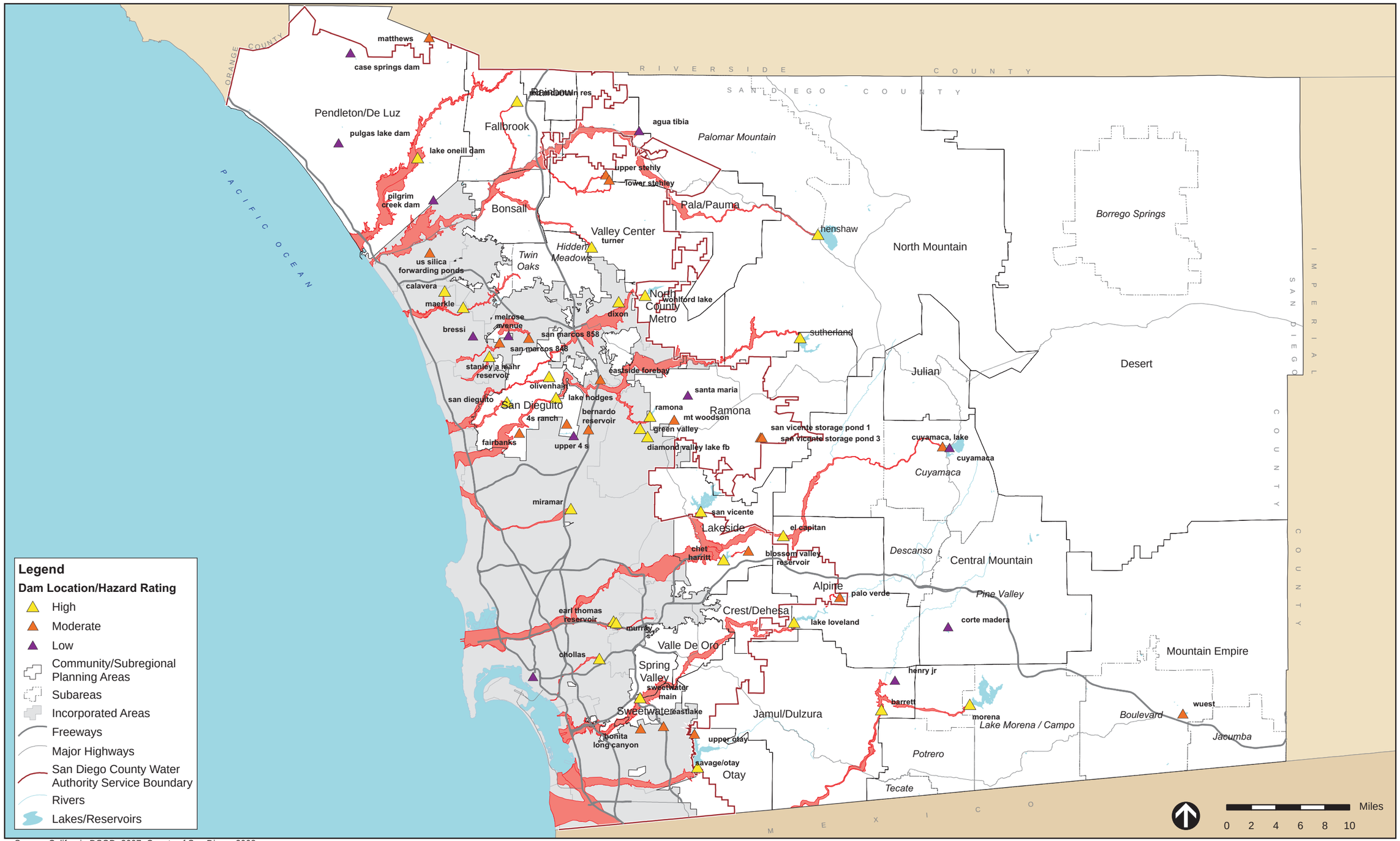



Source: County of San Diego DPLU, 2008

**COUNTY HYDROLOGIC UNITS** **FIGURE 2.8-5**

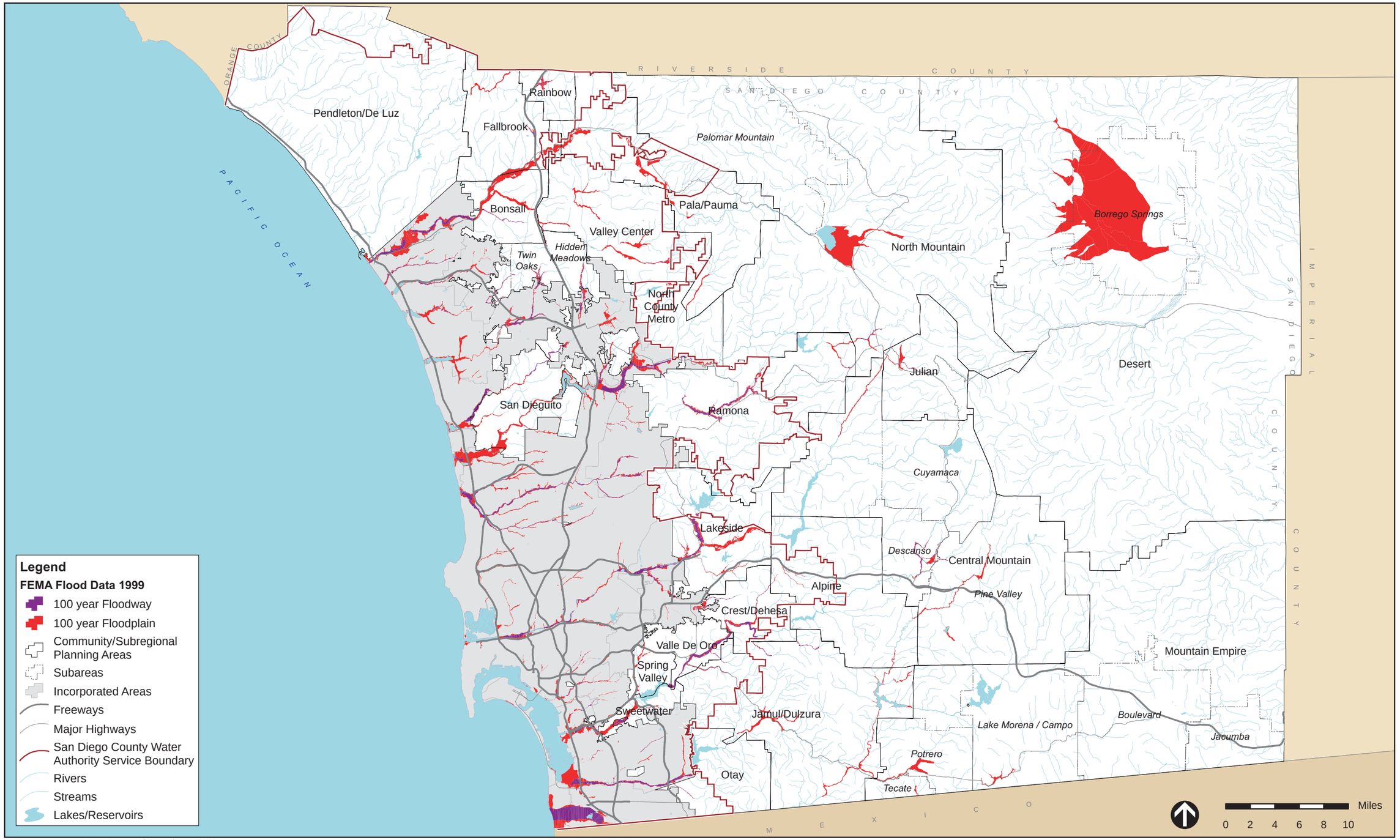



Source: County of San Diego DPLU, 2008




Source: California DSOD, 2007; County of San Diego, 2008

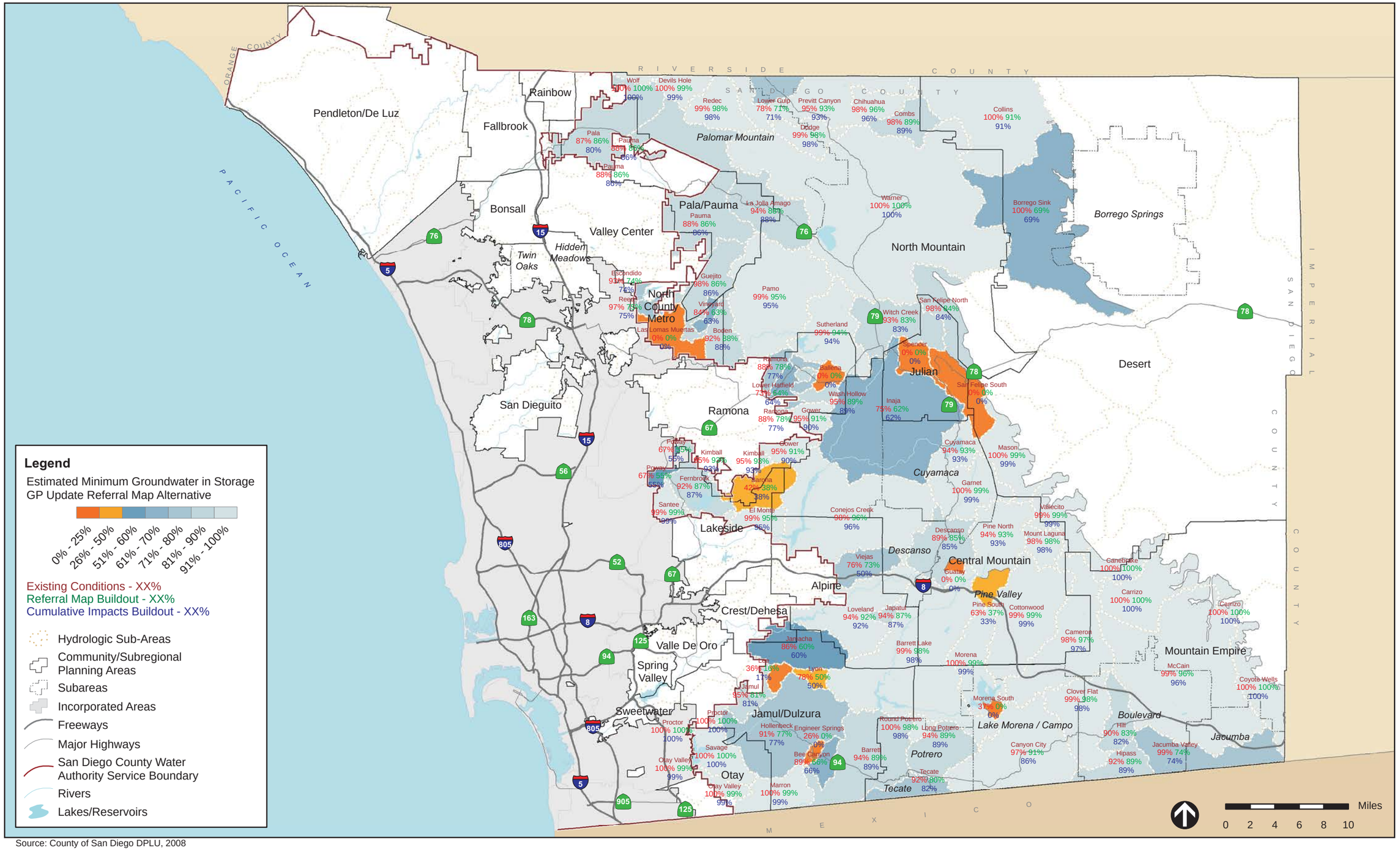
**DAM INUNDATION AREAS** **FIGURE 2.8-7**




Source: FEMA, 1999; County of San Diego, 2008

## COUNTY FLOODPLAINS AND FLOODWAYS

## FIGURE 2.8-8




Source: County of San Diego DPLU, 2008

# 2.9 Land Use

This section of the EIR addresses existing land uses in unincorporated San Diego County and the impacts of the General Plan Update to on site and surrounding land uses. This section discusses and analyzes potential land use conflicts of the General Plan Update in relation to the physical division of an existing community, existing land use plans, and applicable Habitat Conservation Plans (HCPs). The discussion of existing land uses and land use policies and regulations is based on the County of San Diego General Plan, Land Use Element Background Report (DPLU 2007c).

A summary of the land use impacts identified in Section 2.9.3 is provided in the following table.

**Land Use Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Physical Division of an Established Community | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Conflicts with Land Use Plans, Policies, and Regulations | Less Than Significant | Less Than Significant | Less Than Significant |
| 3 | Conflicts with HCPs or NCCPs | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.9.1 Existing Conditions

### *2.9.1.1 Descriptions of Land Uses*

Table 2.9-1 describes the existing land use types in the unincorporated County of San Diego. These land use types are based on existing development patterns from various sources, including ground-truthing aerial photos and building permits.

### *2.9.1.2 Community and Subregional Planning Areas*

This section provides a brief discussion of growth trends and regional land use within the County, and then provides a summary of past and present land use trends in each of the planning areas within the unincorporated County. Population growth is discussed in greater detail in Section 2.12, Population and Housing.

**Growth Trends**

During the period from 2000 to 2007, all of the CPAs and Subregional Planning Areas (Subregions) in the unincorporated County experienced some growth. Overall, the population of the unincorporated County has grown nine percent from 2000, 442,919 to 481,216 in 2007. Historically, the fastest growing areas have been those west of the SDCWA boundary in close proximity to infrastructure.

## Regional Land Use

The unincorporated portion of San Diego County is located in the southwestern corner of California and encompasses approximately 2.3 million acres. It is bordered by Riverside and Orange Counties to the north; Imperial County to the east; the country of Mexico to the south; and 18 local incorporated jurisdictions and the Pacific Ocean to the west. The incorporated cities within the County include the following (listed from north to south): the cities of Oceanside, Vista, Carlsbad, San Marcos, Escondido, Encinitas, Solana Beach, Del Mar, Poway, Santee, El Cajon, La Mesa, Lemon Grove, National City, Chula Vista, Imperial Beach, Coronado, and San Diego. The unincorporated portion of the region is divided into 23 planning areas, as shown in Figure 1-2. Fourteen of the planning areas are CPAs, and 9 are Subregions.

The common characteristics of the land, from topography to public services, work to dictate what development patterns are most appropriate for particular portions of the San Diego region. On average, the unincorporated areas of the County are more highly constrained, with more rugged terrain, more occurrences of sensitive species, and less opportunities to provide essential services. Due to these constraints, the unincorporated areas generally have a different ratio of land uses than the incorporated cities. A majority of the land in the unincorporated County is open space or undeveloped, while the majority of land in the incorporated cities is developed. Land uses identified in the existing General Plan for the unincorporated County are shown in Figure 2.9-1, and Table 2.9-2 provides regional land use distribution totals. Within the developed land areas of the unincorporated County, residential and transportation/circulation uses are the predominant land uses. In addition, several large federal, State and regional parklands encompass much of the unincorporated County, especially the eastern portion.

The most developed communities in the unincorporated County are located along its western boundary and include the CPAs of Spring Valley, Valle de Oro, Lakeside, Ramona, and San Dieguito, as well as the North County Metro Subregion. These areas, located primarily within the SDCWA boundary, have generally been provided with public facilities and services, such as water, sewer, roads, and schools, before other areas of the unincorporated County and, therefore, have been able to sustain growth at a more rapid rate. Because public facilities and services are more difficult and costly to construct and provide further to the east, development has been sparse in the backcountry region.

## Alpine CPA

Alpine covers approximately 68,100 acres of land and is characterized by diverse geography with residential land use patterns and an established town center area. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Alpine CPA was represented by the Alpine Planning Group during the General Plan Update planning process. The most distinguished geographic features include the rugged peaks of the Viejas and El Cajon Mountains near the El Capitan Reservoir in the northern portion of the CPA, and the hills and valleys around the Loveland Reservoir located in the southern portion. The CPA is bisected by I-8, with a majority of the population concentrated in and around the vicinity of the Alpine town center area located adjacent to the freeway. The Cleveland National Forest comprises most of the land in the eastern and northern portions of the Alpine CPA. Privately held lands within these areas were subject to the Forest Conservation Initiative (FCI) until December 31, 2010 (see Section 2.9.2 Regulatory Framework).

Alpine Boulevard forms the commercial spine of the Alpine town center area and runs parallel to the southern side of I-8. Residential development abuts the southern side of the commercial strip, with a development pattern of decreasing density moving away from the town center. A low density rural residential development pattern is located on the rolling hills to the north of the commercial core and I-8, with residential lots ranging from one to ten acres. The Alpine town center area and surrounding low density development are located within the SDCWA. In addition, Alpine has a County-maintained sewer district.

The Viejas Indian Reservation comprises approximately 1,600 acres of the Alpine CPA. The reservation is self-governed by the Viejas Band of Kumeyaay Indians and includes a casino and regional outlet shopping center. The Ewiiaapaayp Band of Kumeyaay Indians owns approximately 20 acres of land along Willows Road to the west of the Viejas Reservation and is proposing to construct a casino facility in this location.

**Bonsall CPA**

The Bonsall CPA encompasses approximately 20,900 acres in the northwest region of San Diego County. The Fallbrook CPA borders it to the north; the Valley Center CPA is located to the east; the North County Metropolitan Subregion and the City of Vista are located to the south; and the City of Oceanside is located to the west. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Bonsall CPA was represented by the Bonsall Sponsor Group during the General Plan Update planning process. The San Luis Rey River encompasses its northern border, turning in a southerly direction toward Bonsall's western edge. The Moosa Canyon Creek also runs in an east-westerly direction through central Bonsall, joining with the San Luis Rey River in the northwest. Bonsall has a general topography of rolling hills and valleys. However, there are areas of steep ridges in the north and northeast along the San Luis Rey River and in the east along I-15 and Moosa Canyon Creek.

Bonsall is generally characterized by low-density residential development with lots ranging from one to ten acres and agricultural uses, and lies entirely within the SDCWA boundary. Agricultural activities generally include the growth of citrus and subtropical plants in the northwest, northeast, and southeast areas of the Bonsall CPA. The CPA also contains an established town center located on the intersection of Olive Hill Road and Mission Road/SR-76, which is the central commercial service area for the community. Residential lot sizes located outside of the town center area range in size from approximately one acre to more than 20 acres. Primary access to the community is through SR-76 on the western edge and I-15 along the eastern boundary.

**Central Mountain Subregion**

The Central Mountain Subregion is known for its scenic beauty, undisturbed landscape and recreational opportunities. The Central Mountain Subregion is located entirely outside of the SDCWA boundary in the eastern part of the County, and consists of 203,300 acres of primarily steep and rugged terrain, connected by valleys and occasional mountain meadows. It is located east of the Alpine and Ramona CPAs, west of the Desert Subregion, south of the Julian CPA and north of the Mountain Empire Subregion. There are three separate planning areas within Central Mountain Subregion: Cuyamaca, Descanso and Pine Valley. Descanso and Pine Valley have rural villages. In addition, Guatay, located within the Pine Valley subregion, has scattered commercial and civic uses. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Central Mountain Subregion was represented by the Descanso and Pine

Valley Planning Groups, and the Cuyamaca Sponsor Group, during the General Plan Update planning process. Two other smaller communities, Buckman Springs and Mount Laguna, are also important residential areas located within the Pine Valley sponsor group area. These communities can be easily accessed by several major roads including: I-8 to SR-79 to Descanso; I-8 to Old Highway 80 to Pine Valley; and either SR-79 to Sunrise Highway or SR-67 through Julian to Cuyamaca.

Large lot, single-family residential development, grazing, dry farming lands, and undeveloped open space are the predominant land uses within the Central Mountain Subregion. However, secondary dwellings, often used in the summertime by vacationers to the area, also characterize this subregion. Smaller sized (0.5-acre or 0.25-acre) lots are predominant in Pine Valley and Descanso, and occur primarily within the rural villages.

Parks, lakes and mountain areas provide important scenic and recreational resources in the Central Mountain Subregion. These include Lake Cuyamaca and the Cuyamaca Rancho State Park in Cuyamaca, the Meadow equestrian area in Pine Valley, and the Cleveland National Forest throughout the entire subregion. Commercial and industrial land use is rare within this subregion. The community of Descanso has the only active industrial use located in Sherilton/ King Creek, which is used to manufacture portable schoolrooms. There is also a borrow pit (granite pit) located south of I-8, and west of Japatul Road which has been in operation since 1937.

Elevation heights within the Subregion can range from approximately 1,000 feet to over 6,500 feet AMSL. Several prominent mountain peaks and ranges are located within the Subregion, including the Cuyamaca Mountains in Cuyamaca and the Laguna Mountains in Pine Valley. The largest public land owners in the Subregion are the Cleveland National Forest and Cuyamaca Rancho State Park. Approximately 31,800 acres, or 15 percent, of the total acreage of the Subregion was subject to the FCI. Over 10,000 acres are under tribal ownership by four different tribal nations. These include the Capitan Grande Indian Reservation, the Inaja and the Cosmit Reservations, and the La Posta Reservation.

Agriculture in the Central Mountain Subregion is restricted by the availability of water, unsuitable soils, and rugged terrain. Agricultural uses that the area can sustain include cattle grazing, small-scale animal husbandry, and dry land oat/hay farming. Groundwater is a major issue for many of the property owners within the Subregion and is the most limiting factor for development in the Central Mountain Subregion.

Since 1992, a moratorium has been imposed on development in the Central Mountain Subregion. This moratorium is being addressed as part of the proposed project. The moratorium area covers all privately owned land within the Cleveland National Forest and outside the rural villages. The moratorium prohibits the County from processing applications for, or issuing or approving building permits, subdivision maps, other lot parcelizations, or any activity that could result in a change or alteration to the physical environment of the privately owned land in the specified areas. It is, however, still possible to obtain building permits for existing legal lots or for structures damaged by brush fires. The moratorium will remain in effect until the Board of Supervisors (BOS) certifies this EIR for the proposed General Plan Update.

## County Islands CPA

The County Islands CPA is comprised of three non-contiguous, isolated areas interspersed within incorporated areas, with a combined total of approximately 500 acres. These separate areas are known as Lincoln Acres, Greenwood, and Mira Mesa. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, County Islands CPA was not represented by a Planning or Sponsor Group during the General Plan Update planning process. Each area is unique because of its small size and limited land uses. Primary uses in Lincoln Acres area are single family residential and a cemetery. Greenwood is entirely encompassed by a cemetery. Mira Mesa is comprised of Scripps Miramar Ranch, a predominantly equestrian-oriented use. All three islands are located within the SDCWA boundary and are primarily accessed by I-805.

## Crest/Dehesa/Harbison Canyon/Granite Hills Subregion

The Crest/Dehesa/Harbison Canyon/Granite Hills Subregion (commonly referred to as Crest/Dehesa) is geographically diverse and includes approximately 20,200 acres. As suggested by its title, the Subregion is comprised of four separate and distinct communities: Crest, Dehesa, Harbison Canyon, and Granite Hills. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Crest/Dehesa Subregion was represented by the Crest/Dehesa/Harbison Canyon/Granite Hills Planning Group during the General Plan Update planning process. The City of El Cajon and the Valle de Oro CPA are located to the west, the Jamul/Dulzura CPA is located to the south, the Alpine CPA is located to the east, and the Lakeside CPA is located to the north. Approximately 818 acres in the southeast portion of the Subregion are under the ownership of the Sycuan Indian Reservation, either as part of the Reservation or held in trust by the Tribe. Sycuan also owns an additional 2,037 acres of fee land that it is seeking to have taken into trust. A very small percentage of the land within the Subregion is used for agricultural production because of the rugged, mountainous terrain. The Crest/Dehesa Subregion also has limited access to imported water, despite a majority of the area being located within the SDCWA boundary, because existing infrastructure is aging, and new infrastructure would be provided by land developers and is prohibitively expensive. The Sweetwater River traverses the southern portion of the Subregion. The following roads primarily serve the community: La Cresta Road, Dehesa Road, Harbison Canyon Road, and Greenfield Drive.

The historic town site of Crest is primarily single-family residential units with the majority of lots less than one acre in size. The Crest town center area is physically isolated from the more urbanized areas in the City of El Cajon located to the west. Harbison Canyon, located in the northern portion of Dehesa Valley, is a small residential community along an oak-lined mountain valley. The residential lots in Harbison Canyon are generally less than one acre in size. The community of Dehesa is a residential area that supports a limited amount of agricultural uses. Mountains rising up on all sides of the Dehesa community help keep development contained and separated from neighboring communities. In Dehesa, residential lots are primarily one acre or larger. The community of Granite Hills has a few agricultural uses; however, the area is currently in transition to more residential uses. In Granite Hills, residential lots are primarily less than one acre in size and the housing pattern is low to medium density single-family residential units. The predominant feature of the Granite Hills community is a suburban settlement pattern set against a background of chaparral-covered granite ridges.

## Desert Subregion

The Desert Subregion covers approximately 598,700 acres, is the largest Subregion, and has the most open space land uses in the County. The Desert Subregion is bordered by Riverside County to the north, Imperial County to the east, the Mountain Empire and Central Mountain Subregions to the south, and the North Mountain and Central Mountain Subregions and the Julian CPA to the west.

The majority of the Desert Subregion is characterized by steep, isolated mountains and valleys, transitioning into vast flat plains and dry sandy washes that are typical of a desert environment. Approximately 190-acres were subject to the FCI, located in the northwest portion of the Subregion. Anza Borrego Desert State Park (ABDSP) is the largest land use in the Desert Subregion. Agricultural uses in the Desert Subregion generally occur in or near the northwestern Borrego Valley area and include the harvesting of citrus orchards, potato fields, and tree farms.

The community of Borrego Springs, located near the geographical center of the Subregion and within the boundaries of the ABDSP, is the primary residential and commercial area in the Subregion. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Desert Subregion was represented by the Borrego Springs Sponsor Group during the General Plan Update planning process. However, Shelter Valley and Ocotillo Wells also have some scattered development. The primary commercial areas in the Subregion are concentrated in the community of Borrego Springs along Palm Canyon Drive and Borrego Springs Road, located near Christmas Circle. In addition, Borrego Springs and ABDSP are major tourist destinations.

Access via air to the community of Borrego Springs is provided by the Borrego Valley Airport, while primary roads within the Desert Subregion include County Route (CR) S-3 linking to SR-78, which connects Borrego Springs to Julian and Ramona to the west and Brawley to the east. Aligned through the center of Borrego Springs, CR S-22 links to Salton City in Imperial County to the east and with SR-79, Warner Springs and Ramona to the west.

A number of residences in the Desert Subregion are second homes (e.g., vacation homes). As a result, there is a higher than normal vacancy rate. Additionally, the Subregion is relatively remote and removed from major residential and employment centers. The entire Desert Subregion is located outside the SDCWA boundary and is totally dependent on groundwater. Borrego Valley is located over a large, over-drafted aquifer. Much of the Subregion also utilizes on-site septic systems, except for a portion in Borrego Springs serviced by the Borrego Water District.

Today, Borrego Springs is essentially a community with a diverse but small-scale commercial area serving the desert region, low-density permanent and seasonal homes, and hotels and tourist resorts. The Borrego Springs town center is composed of low-rise commercial buildings, small shops and offices, giving it an attractive and unique desert town character. Christmas Circle marks the entrance into the village of Borrego Springs from the east and hosts many art shows and community events. The Borrego Springs town center caters to the over one million ABDSP visitors annually. Other residentially developed areas located within the Borrego Springs area include Indian Head, De Anza Country Club, Sun Gold, Ram's Hill Country Club, Borrego Country Club, Roadrunner Club, Deep Well, Old Borrego, Air Ranch, and Tub Canyon. The community caters to a large retirement community that enjoys the five golf courses situated in densely landscaped resorts.

## Fallbrook CPA

The Fallbrook CPA covers approximately 36,100 acres in northern San Diego County. It is bordered by the Pendleton/De Luz CPA to the west; Riverside County to the north; the Rainbow CPA and Pala/Pauma Valley Subregion to the east; and the Bonsall and Valley Center CPAs to the south. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Fallbrook CPA was represented by the Fallbrook Planning Group during the General Plan Update planning process. Most of the Fallbrook CPA is characterized by rolling hills covered in citrus and avocado orchards, interspersed with some field crops. The topography becomes very steep along the northern and eastern boundaries of the planning area and creates a natural buffer that separates the Fallbrook CPA from neighboring communities. The Santa Margarita River crosses through the rugged terrain in the northern portion of the CPA, and the San Luis Rey River runs along the southern boundary shared with the Bonsall CPA.

A thriving and well-defined town center is located in the western portion of the planning area, near the Pendleton/De Luz CPA. In addition to providing services to local residents, it also serves the needs of Camp Pendleton military personnel and their families. The highest concentration of residential densities occurs within and around the town center and consists of small-lot multi-family and single-family residences.

The majority of parcels within the Fallbrook CPA have already subdivided to the extent permitted by the existing general plan. Predominant land uses consist of agriculture and low-density residential development on lots that average two acres. The majority of the Fallbrook CPA lies within the SDCWA boundary, but access to sewer is generally limited to the town center and properties within one to two miles southeast of this area.

A number of specific plans are nearing completion in the Fallbrook CPA. These include Peppertree Park, south of the town center; Sycamore Ranch, north of the San Luis Rey River; Pala Mesa, adjacent to the western edge of I-15; and Lake Rancho Viejo in the southeast corner of the planning area, east of I-15. An undeveloped area of approximately 500 acres that is designated as specific plan area is located at the northeast corner of the intersection of I-15 and SR-76.

I-15, SR-76, and Mission Road provide the major access routes to the area. The I-15 corridor physically divides the CPA in a north-south direction near the eastern boundary. Other major roads servicing local residents within the Fallbrook CPA include Old Highway 395, Gird Road, Reche Road, and Stage Coach Lane.

## Jamul/Dulzura Subregion

The Jamul/Dulzura Subregion is located adjacent to U.S./Mexico international border; east of the Valle de Oro CPA; south of the Crest/Dehesa CPA; and west of the Mountain Empire Subregion. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Jamul/Dulzura Subregion was represented by the Jamul/Dulzura Planning Group during the General Plan Update planning process. The Subregion encompasses approximately 109,700 acres that are generally characterized by rolling hills with flat, broad valleys and contains several small rural or semi-rural neighborhoods including Jamul, Steel Canyon, Dulzura and Barrett Junction. The Subregion is very rural in character as there is no sewer system and imported water is only available in the northwestern portion of the area. With the exception of the San Miguel Mountains located along the western edge of the Subregion, the terrain

becomes steeper and hills become rockier to the east. There are several bodies of water located within this Subregion including Barrett Lake, which is located in the eastern portion of the Subregion. In addition, there are small 100-year floodplains in the eastern portion along Cottonwood Creek running south of Barrett Lake and along Jamul Creek in the southwestern area. Approximately 1,400 acres in the northeastern portion of the Subregion near the Barrett Lake were affected by the FCI and will be remapped in a separate General Plan Amendment.

Campo Road (SR-94) is the main circulation route that bisects the Subregion in a northwest to southeast direction. The smaller community of Dulzura is located along SR-94 in the southeastern portion of the planning area. Residential development is dispersed throughout the northern and central portions of the Subregion, but the majority of residential uses are located in the western portion of the Subregion within the SDCWA boundary. Commercial development is generally confined to the community of Jamul, with the exception of small, dispersed sites along SR-94. Barrett Junction provides the only truck rest stop between Tecate, Mexico, and the rest of the Jamul area. Agricultural uses in small, scattered areas include dry land farming, grazing, and some row crop activities.

The Jamul Indian Village occupies approximately six acres south of Jamul to the west of SR-94 and has filed a Fee-to-Trust application for an additional 101 acres to the west and north of this area. The tribe plans to construct a two-story casino building (approximately 205,000 square feet) on their six-acre parcel and a seven-story parking garage and 300-room hotel on the adjacent Fee-to-Trust land.

**Julian CPA**

The Julian CPA encompasses approximately 33,300 acres and covers the historic downtown area of Julian and the communities of Wynola, Pine Hills, Whispering Pines, Kentwood-in-the-Pines, and Harrison Park. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Julian CPA was represented by the Julian Planning Group during the General Plan Update planning process. The Julian Historic District serves as the main tourist attraction for the area and is characterized by the preserved architectural authenticity of the area's early years of settlement. There is a great variety of residential types/uses within the Historic District. There are single-family residences, residences with part of the house being used for a commercial venture, apartments, bed and breakfast inns, and a mobile home area. This diversity of uses makes the Julian Town Center area more interesting and vibrant for residents and visitors.

Outside the town center area, residential uses are primarily low density with parcels ranging from one to ten acres, and there are large ranches used for grazing and smaller ranches used to produce apples, peaches, or pears, which often go towards the local tourism. Although Julian has a small sewer district and a few water districts, it is beyond the SDCWA service boundary and is therefore dependent on groundwater.

Volcan Mountain, located in the northeast corner of the CPA, rises 1,000 feet above the town of Julian. The base of the mountain is bordered by Banner Creek, which flows southeasterly into Banner Canyon. William Heise County Park, with almost 1,000 acres of mountainous terrain, provides a wilderness experience to residents of the entire region. Other regional facilities include a small County picnic area located adjacent to the Julian Museum and the Inaja day use picnic area located on U.S Forest Service property in the northwest corner of the Julian CPA.

Cleveland National Forest is located in the southern portion of the CPA. Approximately 9,700 acres were subject to the FCI.

Julian is bisected by SR-78, which runs along Banner Creek at the base of Volcan Mountain and traverses the CPA in an east-west direction. SR-78 is the principal travel route to Borrego Springs from metropolitan San Diego and connects with SR-79 in Julian. The North Mountain Subregion bounds the Julian CPA to the north; the Desert Subregion is located to the east; and the Central Mountain Subregion is located to the south.

**Lakeside CPA**

The Lakeside CPA covers approximately 46,000 acres of land in the western foothills of the Cuyamaca Mountains. The CPA is bounded by the City of El Cajon to the southwest, the Crest/Dehesa CPA to the southeast, the cities of Santee and San Diego to the west, the Ramona CPA to the northeast, the City of Poway to the northwest, and the Central Mountain Subregion and Alpine CPA to the east. I-8, SR-67, and Old Highway 80 provide the major access routes to the area. Other major roads servicing local residents within the community include Woodside Avenue, Los Coches Road, Lake Jennings Park Road, and Wildcat Canyon Road. In addition, the majority of the CPA is located within the SDCWA service area. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Lakeside CPA was represented by the Lakeside Planning Group during the General Plan Update planning process.

The northern portion of the CPA is largely undeveloped, characterized by parkland and low density residential development on lots ranging from four to 20 acres or larger. A limited amount of small-scale farming exists in the CPA and many homes in the residential areas of Lakeside have small horse corrals to accommodate an equestrian lifestyle. Agricultural uses are found in the more remote areas along the San Diego River, along the border with Crest/Dehesa, and in Blossom Valley.

The town center of Lakeside is located off SR-67 along Woodside Avenue and Maine Avenue, south of the San Diego River. This portion of the CPA is characterized by a concentrated core of commercial land uses, surrounded by small lot (less than one acre) single-family and multi-family residential development. Individual residential neighborhoods in the CPA include Blossom Valley, Moreno Valley, Eucalyptus Hills, Flinn Springs and Pepper Drive/Bostonia.

Blossom Valley is a distinct neighborhood in the southeastern portion of the CPA, located east of the town center and adjacent to Lake Jennings and I-8. The area is dominated by low density residential uses on lots primarily ranging from two to four acres. There are also some interspersed agricultural uses on larger lots, ranging from four to 20 acres. The lands surrounding this area are primarily undeveloped, whether they are privately owned or public parkland.

Moreno Valley is located along Moreno Avenue, east of SR-67 and south of the San Vicente Reservoir. This area is defined by very steep slopes on the east and a large portion of this valley is within the reservoir's dam inundation area. Predominant uses in Moreno Valley consist of residential lots, averaging from one to two acres, and agriculture. The northern portions of both Moreno Valley and Eucalyptus Hills were burned during the Cedar Fire of 2003.

Eucalyptus Hills is located to the north of the town center, along SR-67, in the western portion of the CPA. The area is dominated by single-family residential uses on lots averaging one to two acres in size. Agricultural uses, parks, and undeveloped land, mainly located around the periphery of the neighborhood, also share the area.

Flinn Springs lies south of Blossom Valley along Old Highway 80. This neighborhood is a mixture of single-family residences, commercial uses, an industrial park, and a County park. Much of the area is located between I-8 and Highway 80.

The Pepper Drive/Bostonia area is currently a separate and unrepresented area but would become part of the Lakeside CPA upon the adoption of the General Plan Update. It is located south of the Lakeside town center, east of the City of Santee, and north of the City of El Cajon. Pepper Drive/Bostonia is characterized by a mix of multi-family and single-family residences interspersed with commercial and industrial land uses. Parcel sizes in this area are primarily less than one acre.

The Lakeside CPA has a number of specific plans, most of which have been constructed. The community also contains the Upper San Diego River Improvement Project (USDRIP), a redevelopment district along the San Diego River that mainly consists of industrial uses with a small number of single-family residences and conserved land.

The Lakeside CPA contains more industrial land uses than any other CPA. These uses are primarily located in three distinct areas. This first area is located in the northern portion of the CPA off SR-67, just southwest of the San Vicente Reservoir. The second area is located in the USDRIP area. The third area of concentrated industrial uses is located west of SR-67 along the western boundary of the Pepper Drive/Bostonia area. There are other scattered locations of industrial uses along Old Highway 80 in the southern portion of the CPA.

The most distinguishing geographic features within the Lakeside CPA include the San Vicente Reservoir in the north, Lake Jennings in the center, and the San Diego River traversing the CPA from east to west. The river floodplain extends from the center of the CPA in three directions, to the east, west, and north. The topography is very steep on either side of the river floodplain, as well as in a majority of the northern portion of the CPA and around the San Vicente Reservoir. Relatively flat areas are found in Blossom Valley and in the southwest portion of the CPA. In the highly urbanized southwestern area, there is an area with steep topography and significant biological value, known as the Lakeside Archipelago. It provides an important wildlife corridor connecting conservation areas in the Crest community with preserved lands north of the San Diego River.

The Barona Indian Reservation located to the north of the Lakeside CPA has a significant effect on land use and community character. The reservation has built a large casino, hotel, and golf course. The resulting demand for water has depleted reserves in its on-reservation basin. Approximately 20 nearby residents along Old Barona Road reported their wells going dry a few years after watering began for the golf course. It should be noted that there is no data available to definitively determine whether the dry wells were impacted by high water demand at the reservation. The lack of recharge from drought conditions, clustered wells on small residential parcels, and low storage capacity of the aquifer are other potential causal factors to be considered with regard to the depleted wells along Old Barona Road. The primary access route to the reservation is from Wildcat Canyon Road.

## Mountain Empire Subregion

The Mountain Empire Subregion is the third largest planning area in the unincorporated County, covering approximately 303,900 acres. This Subregion is bounded by Mexico to the south, Imperial County to the east, the Jamul/Dulzura CPA to the west, the Alpine CPA to the northwest, and the Central Mountain and Desert Subregions to the north. It extends along I-8 from south of Buckman Springs to the Imperial County line and along SR-94 east of Barrett Junction. Approximately 27,000 acres within this Subregion are under tribal ownership by the Campo, Cuyapaipe, La Posta, and Manzanita Indian Tribes. The northern portions of the Subregion consist primarily of Anza Borrego Desert State Park, agricultural preserves, and other public lands. The Subregion is located outside the SDCWA service area boundary; therefore, it is entirely dependent upon groundwater. Farming operations, such as dry-land farming and grazing are scattered throughout the Subregion, especially in the areas of central Potrero, Lake Morena/Campo, and Jacumba. However, due to the limited groundwater supply and arid climate, agriculture is not a prominent use.

There are five small communities within the Subregion with established commercial uses: Potrero, Lake Morena/ Campo, Boulevard, Jacumba, and Cameron Corners. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Mountain Empire Subregion was represented by the Boulevard, Campo/Lake Morena, and Potrero Planning Groups and the Jacumba and Tecate Sponsor Groups during the General Plan Update planning process. The remaining area not included in one of these communities is sparsely populated and includes few privately owned parcels. Each community has its own unique identity; however, they have similar natural characteristics such as topography, water resources, and the environment. Aside from the vast amounts of undeveloped land and parkland, rural residential development is the primary land use in the Subregion. Within the established town center areas, parcel sizes are generally less than one acre. However, the size of parcels surrounding the town center generally ranges from four to 20 acres, with lots larger than 20 acres on the periphery of the community areas. The town center areas also serve as the primary locations for any commercial and/or industrial uses found within the Subregion.

Much of the western portion of the Subregion consists of relatively low hills and valleys. Native groundcover in this western area consists primarily of different forms of chaparral with riparian oak woodlands along the creeks. Also located in this western portion of the Subregion is the Morena Reservoir, which provides aesthetic and recreational opportunities for the community. Highly constrained rough topography is scattered throughout the Subregion, however there are particularly steep areas in the western and eastern portions. Steep slopes also separate the western high valley area from the northeastern desert area, much of which is located within the Anza Borrego Desert State Park, leaving less than one-third of the Subregion in private ownership. The only area with any significant floodplain constraints is in the Potrero area.

A major regional facility found adjacent to the Subregion is the U.S./Mexico international border crossing at Tecate, Mexico. Tecate, Mexico has a population of over 125,000 and local Mexican officials forecast substantial growth in the future. The North American Free Trade Agreement (NAFTA) has been a major impetus for the expansion of Tecate's economic sector, resulting in an increased demand for goods and services on the U.S. side of the border. Currently, this border crossing generates traffic associated with both commuters and commercial trucking. Tecate, Mexico's large population, expanding industrial sector and regional role as a trade center has created substantial demand for economic development on the U.S. side of the border crossing.

## North County Metropolitan Subregion

The North County Metropolitan Subregion (also referred to as North County Metro or NC Metro) is located along the I-15 and SR-78 corridors and is approximately 56,200 acres in size. I-15, SR-78, Deer Springs Road, Twin Oaks Valley Road, Champagne Boulevard, and Mountain Meadow Road provide primary access to the Subregion. In addition, a SPRINTER light rail station is located within the Subregion near the SR-78 southwest of the Twin Oaks community. With the exception of approximately 25,000 acres just east of Escondido, the majority of the Subregion is located within the SDCWA boundary. The Subregion is bordered by the unincorporated CPAs of Bonsall to the north, Valley Center to the north and east, Pala Pauma and North Mountain to the far east, and Ramona and San Dieguito to the south.

North County Metro includes the communities of Hidden Meadows and Twin Oaks, along with a series of islands (unincorporated territories), interspersed among the cities of Escondido, San Marcos, Vista, Oceanside, and San Diego. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, North County Metro Subregion was represented by the Hidden Meadows and Twin Oaks Valley Sponsor Groups during the General Plan Update planning process. Despite North County Metro's proximity to incorporated cities and major transportation routes, rugged terrain and sensitive biological resources make many areas unsuitable for urbanization. The geography of the Subregion is diverse and characterized by a mixture of steep, rugged terrain, rolling hills and valleys, and level farmland. The eastern portion of the Subregion, located near Lake Wohlford between the Valley Center and Ramona CPAs, contains mostly undeveloped land with slopes greater than 50 percent and sensitive biological resources. There are also notable slopes along the I-15 corridor between the Twin Oaks and Hidden Meadows communities. Floodplains are found in the southern portion of the Twin Oaks community near San Marcos Creek and the central portion of the Hidden Meadows community near Escondido Creek.

Development pressure from the urbanized areas has resulted in a residential development pattern throughout much of the Subregion consisting of some low density development with large lots ranging from one to ten acres, and other areas of higher density single-family residences on lots smaller than one acre. While topographically constrained areas remain largely undeveloped in the Twin Oaks and Hidden Meadows communities, both areas contain single-family residential uses on lots ranging from less than one acre to ten acres. Unincorporated island areas interspersed throughout the cities are also predominately single-family residential in nature, but tend to have more multi-family uses. The Subregion does not have significant amounts of commercial and industrial uses because these uses are generally found within the neighboring cities.

Commercial agriculture is an important industry in the North County Metro Subregion. Agricultural activity in the Subregion includes notable amounts of citrus and subtropical plants and nursery production. Intensive agriculture is found in both the Twin Oaks Valley and Harmony Grove areas. A significant portion of land in the Harmony Grove area is currently used for livestock operations including a large egg ranch and dairy farm. Horse-keeping and other types of smaller-scale animal husbandry are important activities that characterize portions of the Subregion.

## North Mountain Subregion

The North Mountain Subregion, comprising approximately 311,800 acres, is the second largest planning area in the unincorporated County. The Subregion is bounded by Riverside County to the north, the Desert Subregion to the east, the Pala/Pauma Valley Subregion and NC Metro Subregion to the west, the Ramona CPA to the southwest, the Central Mountain Subregion to the south, and the Julian CPA to the southeast. The area is primarily accessed via SR-76, SR-78, SR-79, San Felipe Road, and South & East Grade Road. The Subregion is located east of the SDCWA service area boundary and is therefore dependent on groundwater and septic systems. As much as one-quarter of the land in the Subregion is in public or semi-public ownership, and there is also a substantial amount of land (approximately 48,900 acres) under the Pauma, Yuima, Los Coyotes, Mesa Grande, or Santa Ysabel Indian Reservations. The FCI applied to approximately 27,900 acres primarily located in the western portion of the planning area.

Established commercial areas in this Subregion include the small community of Warner Springs (currently the only specific plan area within the Subregion) and the commercial area at the Santa Ysabel intersection. Other distinctive neighborhoods include Ranchita, Palomar Mountain, Mesa Grande, San Felipe, Sunshine Summit, and Oak Grove. Each has a very small, isolated area of rural commercial uses to serve the needs of local residents. Because of the isolated, rural character of the area, the General Plan Update does not propose additional commercial development in the Subregion. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, North Mountain Subregion was not represented by a Planning or Sponsor Group during the General Plan Update planning process.

The North Mountain Subregion is characterized by vast open expanses of undeveloped land and scattered low density residential development. Except for the valley basin to the east of Lake Henshaw, most of the Subregion is highly constrained with steep slopes of 25 percent or more. In addition, most of the Subregion has high biological value and resource sensitivity. One important biological amenity is the San Luis Rey River. The area of Warner Springs has the most identifiable concentration of single-family residential land uses. Much of the Subregion is used for grazing since other agricultural uses are limited by lack of imported water and poor soils. Agricultural uses that are present are primarily concentrated in the area between Lake Henshaw and Warner Springs, in and around Mesa Grande, Santa Ysabel, and Ranchita and in the southeastern corner of the Subregion.

One significant regional facility located within the Subregion is the Palomar Mountain Observatory. The Observatory is owned and operated by Caltech, a privately endowed educational and research institution located in Pasadena, California, and is used to support Caltech's scientific research programs.

## Otay Subregion

The Otay Subregion encompasses approximately 28,400 acres in the southwestern corner of the unincorporated area of San Diego County. It is bordered on the west by the cities of Chula Vista and San Diego, on the north and east by the unincorporated community of Jamul/Dulzura, and on the south by the international border with Mexico. The Otay Subregion is characterized by rolling hills, vast open mesas, numerous river valleys and canyons, and a series of mountain ranges, with steep, rugged terrain. The most distinguishing geographic features of this planning area include the Upper and Lower Otay Reservoirs, Otay Mountain, and the Jamul and San

Ysidro Mountain ranges. SR-125 and Otay Lakes Road provide primary access to the Subregion.

The majority of the land within the Subregion is either within a specific plan or has public/semi-public uses. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Otay Subregion was not represented by a Planning or Sponsor Group during the General Plan Update planning process. The northwestern portion of the Otay Subregion, which abuts the City of Chula Vista, is primarily occupied by the approximately 23,000-acre Otay Ranch property. The City of San Diego owns the 2,900-acre area surrounding and including Otay Lakes. The East Otay Mesa Specific Plan primarily occupies the southwestern portion of the Otay Subregion, which abuts the City of San Diego and the U.S./Mexico international border, and consists primarily of industrial uses. The East Otay Mesa Specific Plan, encompassing approximately 3,300 acres, is in the initial stages of implementation and is one of the only portions of the Subregion within the SDCWA service area boundary. Other land holdings in the community include the County's George F. Bailey Detention Facility, the Richard J. Donovan Correctional Facility, East Mesa Juvenile Detention Facility, the Otay Landfill, auto salvage yards, and agricultural land. The BLM is responsible for the administration of 650 acres in the Otay Subregion which are mostly undeveloped.

**Pala/Pauma Valley Subregion**

The Pala/Pauma Valley Subregion, located in northern San Diego County, is approximately 73,700 acres and is comprised of the small rural communities of Pala, Pauma Valley, and Rincon Springs. The Subregion is bordered by Riverside County to the north, the Rainbow, Fallbrook, and Bonsall CPAs to the west, the Valley Center CPA and the NC Metro Subregion to the south, and the North Mountain Subregion to the east. SR-76 (Pala Road) bisects the planning area, and is one of the primary east-west transportation routes for northern San Diego County. Other key roads in the Subregion include Cole Grade Road, Lilac Road, and Pala-Temecula Road. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Pala/Pauma Valley Subregion was represented by the Pala/Pauma Valley Sponsor Group during the General Plan Update planning process.

The majority of the Pala/Pauma Valley Subregion is located outside of the SDCWA service area boundary. Those areas located within the SDCWA include the western areas adjoining the Rainbow and Fallbrook CPAs and portions in the north adjoining the Riverside County line. The Yuima Municipal Water District also provides water service to a small area located within Pauma Valley. Public sewer is primarily restricted to the existing town center area within the Pauma Valley Country Club. The remainder of the Subregion relies on groundwater wells and above-ground septic systems. Approximately 20,900 acres within this Subregion are under the tribal ownership of the Pala, Pauma, Yuima, Rincon, and La Jolla Indian Tribes. Several of these reservations include large casino and resort developments, including the Pala, La Jolla, and Rincon Reservations.

Due to its relatively remote location and rugged topography, much of the Subregion is undeveloped, designated parkland, or used in agricultural production. Agricultural uses are concentrated along the valley floor, located adjacent to single-family residential development on lots ranging from four to eight acres on parcels that are 20 acres and larger. There are small, isolated areas of single-family and multi-family residential development on lots two acres or less along the Subregion's western border with the Valley Center CPA. Commercial development is

concentrated within the existing town center area boundaries. However, there is some scattered commercial development in Rincon Springs located east of the town center area.

Unique topographic and biological features also characterize the Subregion. Although the valley in the central portion of the planning area is relatively flat, it is bounded on all sides by highly constrained steep slopes. The San Luis Rey River provides a corridor for a wide variety of natural habitats and their associated wildlife species as it traverses through central Pauma Valley. Sensitive floodplains traverse the Subregion through the northwest and central valley, with another small area within the Rancho Guejito area. In addition, agriculture continues to play an important role in defining the planning area's rural character and the local economy. Typical agricultural land uses include citrus, orange and avocado groves, and large commercial nurseries. Rancho Guejito (approximately 23,000 acres) was established during the Spanish Land Grant period and defines the planning area's southern and eastern boundary. It is the largest parcel remaining under single ownership in the County and has significant biological value in the region. This unique property is a critical component of the proposed North County MSCP preserve areas.

**Pendleton/De Luz CPA**

The Pendleton/De Luz CPA is located in the northwestern corner of the County and is bordered by the Counties of Orange and Riverside to the north, the City of Oceanside to the south, the Fallbrook CPA to the east, and the Pacific Ocean to the west. The planning area is approximately 163,300 acres in size and is primarily served by I-5, De Luz Road, and Fallbrook Road. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Pendleton/De Luz CPA was not represented by a Planning or Sponsor Group during the General Plan Update planning process. Steep, rugged terrain and a large military base encompass over 75 percent of the CPA. Parkland is another important component of the Pendleton/De Luz planning area. A portion of Cleveland National Forest accounts for 1,500 acres of the CPA, and the privately owned lands within the Cleveland National Forest were subject to the FCI. The majority of the planning area lies within the boundary of the SDCWA. The predominant land use is agriculture, including orchards, field crops, and greenhouses. Multi-family residences are located on the military base. The remainder of the CPA consists of large, sparsely populated lots that are remote from public services.

**Rainbow CPA**

The Rainbow CPA covers approximately 9,700 acres and is located in northern San Diego County, south of the City of Temecula in Riverside County, east of the Fallbrook CPA, and west and north of the Pala/Pauma Valley Subregion. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Rainbow CPA was represented by the Rainbow Planning Group during the General Plan Update planning process. It is divided into two geographical areas, the Rainbow Valley, and the outlying foothills and mountain areas. I-15 bisects the Rainbow CPA, with the majority of the planning area located to the east of the freeway. The eastern area is mainly served by Rainbow Valley Boulevard, while Rainbow Glen Road serves the western area. Rainbow also has an established town center area and the entire CPA is located within the SDCWA service area boundary. The planning area is also home to the weigh station for the County border crossing, a significant regional facility. Parcel sizes range from eight to 20 acres or more in areas west of I-15, along the eastern border, and in the northeast corner of the CPA. In the established town center area, parcel sizes mainly range from one to eight acres.

The Rainbow CPA is rural in character, and contains numerous natural resources, such as Engleman Oaks, coastal sage scrub, and numerous rock outcroppings. Other significant environmental features include Gomez Creek in the east, Sandia Creek in the west and Rainbow Creek in the north. The areas surrounding the Rainbow Valley are very steep, rocky, and characterized by low-density single-family residential development. Agriculture plays an important role in both the local economy and in the larger economy of the San Diego region. Approximately 36 percent of the acreage within the CPA is used for agricultural activities, including growth of avocado, citrus, nut crops, and commercial nurseries.

**Ramona CPA**

The Ramona CPA covers approximately 89,300 acres in the center of the San Diego region and is one of the most populous CPAs, with a well-established town center area and residential development. Two distinctive communities in Ramona are Fernbrook, located in the southern portion of the planning area, and San Diego Country Estates, located in the eastern portion of the CPA. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Ramona CPA was represented by the Ramona Planning Group during the General Plan Update planning process. The CPA is bounded by the City of San Diego, the North County Metro Subregion and the North Mountain Subregion to the north, the Central Mountain Subregion to the east and southeast, the Lakeside CPA to the south, and the City of Poway to the southeast. The area is primarily accessed via SR-67 (Main Street/Julian Road), SR-78 (San Pasqual Valley Road), San Vicente Road, and Highland Valley Road. The westerly two-thirds of the CPA are located within the SDCWA boundary. In addition, 1,708 acres were subject to the FCI and are primarily located in the southeastern corner of CPA.

Ramona's town center area and its surrounding residential land uses have an equestrian character. Land uses radiate out from the center of town in what can be described as concentric rings. The center of the town is characterized by its concentrated commercial land uses along Main Street, as well as single-family residential development on lots often less than one to two acres in size. This area is surrounded by low density residential development on lots between one and two acres, which in turn is surrounded primarily by agricultural uses, undeveloped land, or interspersed low density residential development. The San Diego Country Estates area and the Fernbrook area are the only other areas of concentrated single-family residential uses on lots less than one acre. Most of the remaining area includes lots greater than four acres, with a majority being greater than 20 acres.

Topographically, the Ramona CPA is characterized by a large central valley surrounded by foothills and rugged mountains. Development of the southern and eastern portions of the planning area is constrained due to steep slopes. Outside of the developed Town Center area, most of the planning area has significant biological sensitivity. Among the many natural resources in the CPA are the Sutherland Reservoir, San Vicente Creek, Santa Maria Creek, and a small portion of San Vicente Reservoir.

A particularly notable area of biological sensitivity is the Ramona Grasslands in the northwestern portion of the CPA. The Ramona Grasslands cover an area of approximately 4,000 acres and represent some of the last remaining native grassland in San Diego County. Surrounding and included within these grasslands are a variety of rare habitat types, including vernal pools, Diegan coastal sage scrub, and oak woodland, as well as riparian forests. These

habitats also support a number of federally and State-listed species. The Ramona Grasslands are a prized resource in the community, both for their biological richness and aesthetic value.

**San Dieguito CPA**

The San Dieguito CPA covers approximately 30,000 acres and is primarily made up of rolling hills and low-density estate development. The CPA itself is an island of unincorporated territory bounded by the City of San Diego to the south and west, the City of Escondido to the northeast, the City of San Marcos to the north, the City of Carlsbad to the northwest, and the Cities of Encinitas, Solana Beach, and Del Mar to the west. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, San Dieguito CPA was represented by the San Dieguito Planning Group during the General Plan Update planning process. Primary access is provided via I-15, I-5, Del Dios Highway, Via de La Valle, Linea Del Cielo, El Camino Del Norte, and Rancho Bernardo Road. The largest of these is the 4S Ranch area. The entire CPA is located within the SDCWA boundary, and has access to both water and sewer services.

The San Dieguito CPA has a very distinctive town center with concentrated commercial uses known as the Rancho Santa Fe Village (also referred to as "the Village"). This area is a historic commercial and residential district located in the heart of the community of Rancho Santa Fe. It is widely known for its pedestrian scale and attractive Spanish style buildings. The village and the surrounding rural residential area are also subject to a covenant restricting architectural design and minimum lot size. Per this covenant, residential lots are required to be a minimum of 2.0 to 2.86 acres in size and the architectural design of homes and businesses is strictly regulated. The Rancho Santa Fe Association is the body responsible for establishing and enforcing these planning and design standards for the covenant area. The historic village of Rancho Santa Fe and surrounding estate properties, along with Fairbanks Ranch, make up the majority of the southwestern portion of the CPA.

There are also a number of other unique established neighborhoods within the San Dieguito CPA. Among these are Del Dios, Elfin Forest, Fairbanks Ranch, and El Apajo. Elfin Forest and Del Dios are rural communities in the northern portion of the planning area and are characterized, in part, by steep slopes and dark night sky. Fairbanks Ranch and El Apajo are established specific plans in the southern portion of the CPA.

The San Dieguito CPA also has a significant amount of land currently undergoing development. The three most prominent of areas of development are the Rancho Cielo, Santa Fe Valley, and 4S Ranch Specific Plans. The Rancho Cielo Specific Plan, located north of Del Dios Highway, is a planned development that was approved for 774 residential units on approximately 2,800 acres of land at an overall density of 0.27 units per acre. The Santa Fe Valley Specific Plan, located south of Del Dios Highway, was approved in 1995 and proposes a maximum of 1,200 dwelling units (du) and associated community and commercial facilities. The overall density of the approved plan is 0.38 units per acre on a total of 3,160 acres. The 4S Ranch Specific Plan, in the eastern portion of the CPA, is one of the largest specific plans in the unincorporated County and is a phased project. The entire 4S Ranch property covers approximately 3,600 acres. The project consists of seven single-family and multi-family residential neighborhoods. The 4S Ranch Specific Plan also includes limited commercial and industrial components and over 1,600 acres of permanent open space.

Within the San Dieguito CPA there are many agricultural uses such as orchards and row crops. Most of the remaining agricultural areas are in the eastern portion of the planning area in the

undeveloped areas of the specific plans. However, many of the estate areas in the western portion of the planning area have secondary uses such as orchards or horse keeping. Significant geographic features and biological resources in the planning area include Escondido Creek, Lusardi Creek, La Orilla Creek, and the San Dieguito River. Lake Hodges is located just outside the eastern boundary of the planning area.

**Spring Valley CPA**

Spring Valley encompasses approximately 7,500 acres within the SDCWA boundary, and is approaching its build-out capacity. The CPA is bounded by the Valle De Oro CPA to the north and east; the Sweetwater CPA to the south; the City of San Diego to the southwest; and the cities of Lemon Grove and La Mesa to the northwest. The area is primarily accessed via SR-94 (Campo Road), Sweetwater Road, Jamacha Boulevard, Broadway, and Bancroft Drive. Access to Spring Valley has been improved by the SR-125 extension toll road. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Spring Valley CPA was represented by the Spring Valley Planning Group during the General Plan Update planning process.

Spring Valley is a well-established suburban CPA of lots primarily less than one acre. Particularly small lots are found in an area known as Dictionary Hill, which is one of the older communities within the San Diego region. The primary use within the CPA is single-family residential development; however, the area also has a substantial amount of multi-family and mobile home facilities. The construction types for these residential uses range from affordable, older apartment buildings to luxury subdivisions and custom homes. Other than the few in-fill lots still available, the only major area remaining for development is the Pointe Specific Plan, in the eastern portion of the CPA, which includes 845 new residences. Commercial uses are generally located along major thoroughfares, not within one centralized community center. There are also pockets of light industry scattered in four different locations within the CPA.

The Spring Valley CPA is mostly flat other than a steeper portion of up to 50 percent slopes in the area's center and eastern edge. The Sweetwater Reservoir is the southern border of the CPA and is one of the few remaining areas of open space within the community. Due to the highly developed nature of the CPA, very little sensitive biological resources remain. However, the uses do affect neighboring sensitive resources, such as the Sweetwater River.

**Sweetwater CPA**

The Sweetwater CPA encompasses over 7,600 acres and is located within the SDCWA boundary. Access to public facilities such as water and sewer is available, including full access to water and partial access to sewer through the Spring Valley Sanitation District. However, a large portion of the CPA relies on septic. The CPA is bounded by the Spring Valley and Valle de Oro CPAs to the north; the Jamul/Dulzura CPA to the east; the City of Chula Vista to the south and west; and the City of San Diego and National City to the west and northwest. The area is primarily accessed via SR-54, I-805, Bonita Road, Sweetwater Road, San Miguel Road, and Proctor Valley Road. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Sweetwater CPA was represented by the Sweetwater Planning Group during the General Plan Update planning process.

The majority of the western half of Sweetwater is developed with single-family residences located on parcels less than one acre. Defined communities within the CPA include Bonita,

Sunnyside, and Proctor Valley. There are very few commercial uses within the CPA because residents generally utilize facilities under the jurisdiction of the neighboring incorporated cities.

The eastern portion of the CPA, which represents over half of the planning area, is still largely undeveloped due to the sensitive nature of both the Gobblers Knob and Mother Miguel Mountain areas. Mother Miguel Mountain is within a nature preserve. These areas are also the only areas with any relatively steep topography within the CPA. Other biologically sensitive areas include the Sweetwater River and its associated floodplain as it traverses through the center of the planning area is an east-westerly direction. Much of the Sweetwater River floodplain is preserved for County parkland. Since 2004, shoreline fishing has been allowed on a limited basis on the south side of the Sweetwater Reservoir, along the CPA's northern boundary. The Sweetwater Reservoir Riding and Hiking Trail, operated through an easement granted to the County of San Diego, also runs along the south side of the reservoir.

**Valle de Oro CPA**

Valle de Oro is an established suburban CPA of approximately 13,100 acres located in the southwestern portion of the County. The entire CPA is within the SDCWA boundary. It is bounded by the cities of La Mesa and El Cajon to the north; the Crest/Dehesa CPA to the north and east; the Jamul/Dulzura CPA to the east and south; the Sweetwater CPA to the south; and the Spring Valley CPA and the City of La Mesa to the west. Primary access to the community is via SR-94 (Campo Road), Avocado Boulevard, Fury Lane, Fuerte Drive, Willow Glen Drive, and Jamacha Road. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Valle de Oro CPA was represented by the Valle de Oro Planning Group during the General Plan Update planning process.

The vast majority of Valle de Oro is within a specific plan, preserved, or built-out with mostly single-family residential development or open space parks. Commercial uses are primarily focused along SR-94 in the center of the CPA. Large areas of extractive industrial uses are located in the east, along Willow Glen Road, and in the center, along Jamacha Road. The CPA also contains several distinct neighborhoods. The Mount Helix/Casa de Oro neighborhood generally consists of commercial and high-density residential along Campo Road and lower density housing to the north up the slopes of Mount Helix. To the east, the area gradually becomes more rural and agricultural. The Vista Grande Hills neighborhood is located in the northeastern section of the CPA. This area has suburban and semi-rural development, and becomes gradually more rural, agricultural, and estate oriented. Rancho San Diego is in the southeastern portion of the CPA. This neighborhood has been developed with large-scale, residential and commercial developments interspersed with large areas of green-belt and biological open space for wildlife preservation. This preservation primarily takes the form of a 1,800-acre National Wildlife Refuge.

Although the majority of the CPA is relatively flat, there is rugged terrain in the eastern and southern portions, primarily below the Sweetwater River. There is also a very steep area in the western portion of the plan area, known as Mount Helix. In addition, the Sweetwater River and its associated floodplain sensitive biological resources traverse Valle de Oro from the northeast to the southwest.

## Valley Center CPA

Valley Center is comprised of approximately 55,200 acres located in northern San Diego County. The CPA boundaries are contiguous to the Fallbrook CPA in the northwest; the Pala/Pauma Valley Subregion to the north and east; the Bonsall CPA to the west; and the North County Metropolitan Subregion to the south. The planning area is accessible from the south via Valley Center Road, which also serves as the main connection between the City of Escondido and Valley Center. SR-76 and Cole Grade Road provide access to the northeastern areas of the CPA. Circle R Drive and Old Castle Road provide access to the western areas of the planning area and serve as important transportation links to I-15. The entire planning area is located within the SDCWA boundary with the exception of a small isolated area located in southern Paradise Mountain. As described in Section 1.12.2.3, Coordination with Regional Advisory Committees, Valley Center CPA was represented by the Valley Center Planning Group during the General Plan Update planning process.

The CPA is comprised of several distinct geographic areas that include the Central Basin area; the Lilac area, located east of I-15; the Old Castle/Castle Creek area, located east of I-15; and the Hellhole Canyon/Paradise Mountain area, located in the southeastern corner of the planning area. Approximately 2,900 acres are under the tribal ownership of the Rincon Reservation in the east and the San Pasqual Reservation in the south. The Pala Reservation abuts the northern CPA boundary located north of the Weaver Mountain.

Valley Center's residential development pattern consists primarily of low density residential lots located on parcels that are two acres or larger that are dispersed around the northern and southern town center areas. There are two mobile home park developments within the CPA: the Skyline Ranch Country Club and Lake Hideaway. Currently there are two developed specific plans in Valley Center: Castle Creek Country Club and Woods Valley Ranch. Commercial land uses are primarily concentrated within the northern and southern town center areas located at the intersections of Valley Center Road and Cole Grade Road; and Valley Center Road and Woods Valley Road respectively. There are a few scattered commercial businesses located outside of the town centers. Industrial land uses are concentrated in the northern town center area, located south of Valley Center Road.

Unique topographic features that include numerous valleys and ridgelines, hillsides with granite boulder outcroppings and stands of live oak and Engleman oak characterize Valley Center. Gentle rolling hillsides eventually give way to steep, rugged terrain, especially in the outlying areas. Moosa Canyon Creek and its corresponding floodplain traverse the CPA in the southeast, while Keys Creek and its floodplain bisect the northwestern and central portion of the plan area. Although outside the CPA, the San Luis Rey River contributes to the sensitive nature of the plan area along its northern boundary. Other areas of high biological and species sensitivity area scattered throughout the CPA, especially in the area known as Hellhole Canyon/Paradise Mountain.

Agriculture within this CPA is an important component to the local and regional economy. Local agricultural crops include avocados, citrus, persimmons and specialty ornamental crops such as cut flowers and nursery plants. Agricultural operations are concentrated in the northern and western portions of the plan area, however agricultural uses are also found throughout the CPA.

### *2.9.1.3 Spheres of Influence*

A Sphere of Influence (SOI) is a planning tool adopted and used by Local Agency Formation Commission (LAFCO) to designate the probable physical future boundaries and service areas for a city or special district. It is intended to ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands by preventing overlapping jurisdictions and duplication of services. Territory must first be located within a city's or district's SOI in order to be annexed. Pursuant to California Government Code Section 56425(g), SOI are required to be reviewed and updated, as necessary, every five years; however, they may also be periodically amended.
Spheres within San Diego County

Eighteen communities within the unincorporated County are affected by SOI from eleven of the surrounding jurisdictions, as shown in Figure 2.9-2. The unincorporated community and adjacent city each plan these areas separately, with the understanding that the area may eventually be annexed into the city's jurisdiction. However, because the area is not yet under the jurisdiction of the surrounding city, there is no direct requirement that the SOI comply with the city's plans for this area.

There are several designations associated with SOI.

- A ***larger-than-agency*** sphere indicates territory outside of the current jurisdictional boundary that is projected to receive services from the subject agency within the next 10-15 years;
- A ***zero*** sphere is a transitional designation that indicates the subject agency's services will ultimately be provided by another agency;
- A ***coterminous*** sphere indicates that there is no anticipated need for the subject agency's services outside of its existing boundaries, or there is insufficient information to support inclusion of areas outside the agency's boundaries at the time of the sphere establishment or update;
- If more than one agency appears equally qualified to serve an area, and if fiscal considerations and community input do not clearly favor a specific agency, an ***overlapping*** sphere may be designated; and
- If territory within an agency's service area does not need all of the services of the subject agency, a ***service-specific*** sphere may be designated.

## 2.9.2 Regulatory Framework

The County of San Diego has numerous policies, programs, codes and ordinances that regulate land use development. In order to simplify the volume and complexity of these regulations, this inventory focuses on policies that affect land use designations and zoning. Policies and regulations that indirectly affect land use planning, such as traffic, water quality, and air quality regulations, are included in other sections of Chapter 2.0 of this EIR (Sections 2.1 through 2.16).

### *2.9.2.1 State*

**California Aeronautics Act**

The California Aeronautics Act, established by the California Department of Transportation – Division of Aeronautics, requires the preparation of airport land use compatibility plans (ALUCPs). ALUCPs promote compatibility between airports and the land uses that surround them to the extent that these uses are not already developed with incompatible land uses. They are intended to protect the safety of people, property and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. In late 2006, the SDCRAA adopted new ALUCPs for six rural airports operated by the County (Agua Caliente, Borrego Valley, Fallbrook, Jacumba, Ocotillo, and Ramona).

**California Planning and Zoning Law**

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law Sections 65000 through 66499.58. Under State planning law, each City and County must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

**California Office of Planning and Research (OPR) General Plan Guidelines**

To assist local governments in meeting general plan requirements, the OPR is required to adopt and periodically revise guidelines for the preparation and content of general plans (Government Code Section 65040.2). These are advisory guidelines, not mandated requirements, and serve as a reference tool for cities and counties in the preparation of local general plans. The guidelines include information on the required contents of a general plan, sustainable development and environmental justice, formatting, public participation, and implementation. The most recent version of the OPR General Plan Guidelines was prepared in 2003. OPR is currently in the process of preparing an updated version of the Guidelines.

**Local Agency Formation Commission (LAFCO)**

California Government Code Section 56000 (et seq.), titled the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, provides LAFCO with its powers, procedures and functions. This law gives LAFCO power to “approve or, disapprove with or without amendment, wholly, partially or conditionally” proposals concerning the formation of cities and special districts, and other changes in jurisdiction or organization of local governmental agencies. LAFCO regulates local agency boundary changes including annexation and detachment of territory, incorporation of cities, formation of special districts, and consolidation, merger, and dissolution of districts. LAFCO is also charged with developing and updating SOI for each city and special district within the County.

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 discourages urban sprawl and to encourage orderly and efficient provision of services, such as water, sewer, and fire protection. As a result, San Diego LAFCO, a State-mandated agency with countywide regulatory authority, independent of county government, completed the North County Inland Municipal Service Review (MSR) and SOI Update Study in September 2003 (LAFCO 2003). This study analyzes the proposed and recommended spheres for the affected local agencies, identifies the relevant service review determinations, and focuses on the expansion of the Escondido SOI to the southeast, retention of Escondido's SOI in the west and north, and updates to the Valley Center Municipal Water District and Rincon del Diablo Municipal Water District SOI.

Other MSR and SOI Updates completed since 2003 include:

- Borrego Valley – contains a review of the provision of municipal services and the status of adopted spheres of influence of the local governmental agencies in the Borrego Valley study area
- County Sanitation Districts – assesses the adequacy of public services in a specific geographic region
- Southern San Diego County Water and Sewer Service – evaluates the status of the region's current water and sewer service systems and assesses the region's potential to efficiently meet future demands
- Agencies Providing Floodwater and Sewage Control, Waterworks Construction, and Groundwater Management, Protection, and Exploration in the Tijuana Watershed

**Natural Community Conservation Planning (NCCP) Act of 1991**

The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land uses. The CDFG is the principal state agency implementing the NCCP Program. The Act established a process to allow for comprehensive, regional multi-species planning in a manner that satisfies the requirements of the State and federal ESAs (through a companion regional HCP). The NCCP program has provided the framework for the State, local governments, and private interests to plan for the protection of regional biodiversity and ecosystems. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

**Senate Bill (SB) 375**

SB 375 was adopted in September 2008. SB 375 requires metropolitan planning organizations to develop a Sustainable Communities Strategy to include in their regional transportation plans for the purposes of reducing greenhouse gas emissions. The purpose of the bill is to align planning for transportation and housing, and it creates specified incentives for the implementation of the strategy. The bill consists of five aspects: 1) creation of regional targets for greenhouse gas emissions reduction tied to land use; 2) a requirement that regional planning agencies create a Sustainable Communities Strategy to meet those targets, even if that plan is in conflict with local plans; 3) a requirement that regional transportation funding decisions be consistent with this new plan; 4) a requirement that the Regional Housing Needs Allocation numbers must conform to the Sustainable Communities Strategy; and (5) new CEQA exemptions and streamlining for projects that conform to the Sustainable Communities Strategy (Fulton 2008).

## *2.9.2.2 Local*

**San Diego Association of Governments (SANDAG) Plans and Programs**

**2030 Regional Transportation Plan (RTP)**

The RTP, also known as MOBILITY 2030, serves as a blueprint to address the mobility challenges created by the San Diego region's growing population and employment. It contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the region. The 2030 RTP was approved on March 28, 2003. Changes in anticipated cost and revenue have resulted in an update of the RTP that was approved by the SANDAG Board of Directors in 2006. Additional updates and approvals were obtained in late 2007, to incorporate a new regional growth forecast, strategic initiatives and several other white papers on topics not previously covered in the RTP.

**Congestion Management Program (CMP)**

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a CMP, which is a part of SANDAG's RTP. The purpose of the CMP is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG, as the designated Congestion Management Agency for San Diego region, must develop, adopt and update the CMP in response to specific legislative requirements. SANDAG, local jurisdictions, and transportation operators such as Caltrans, MTDB, and NCTD, are responsible for implementing and monitoring the CMP.

**Regional Comprehensive Plan (RCP)**

The RCP is prepared by the SANDAG to be the strategic planning framework for the San Diego region. It creates a regional vision and provides a broad context in which local and regional decisions can be made that foster a healthy environment, a vibrant economy, and a high quality of life for all residents. The RCP balances regional population, housing, and employment growth with habitat preservation, agriculture, open space, and infrastructure needs. The RCP considers the general plans of all the jurisdictions in the region, examines regional growth patterns and provides a blueprint for growth in San Diego, including where and how growth would occur.

**County of San Diego Plans, Programs, Policies, and Regulations**

**Community and Subregional Plans**

Each planning area has a community or subregional plan except for Pendleton/De Luz and County Islands, which are CPAs without organized planning or sponsor groups. Each community plan or subregional plan supplements the County General Plan by focusing on a particular planning area. Community and subregional plans contain information and policies concerning land use, housing, circulation, conservation, public facilities and services, recreation, and community character. Other issues may be addressed depending on the circumstances in a particular community. The policies and programs contained in a community or subregional

plan, which must be consistent with the General Plan, are intended to provide long-term guidance and stability in implementing the goals of the plan.

### Specific Plans

Specific plans provide an alternative to the Zoning Ordinance in that they are customized plans that delineate land uses, infrastructure, development standards and criteria, and mitigation measures for specific land areas. Specific plans must be consistent with the General Plan, and can be used to implement the General Plan within a limited area.

### Forest Conservation Initiative (FCI)

The FCI, enacted in 1993, affected approximately 91,000 acres of privately owned land within the Cleveland National Forest through the establishment of 40 acres as the minimum parcel size for dwelling units. The goal of this initiative was to restrict the development of new housing, in order to preserve the area's lands' unique resources, and preserve the rural environment, and open space. Existing town center areas located within the Cleveland National Forest were exempt from this initiative because they represent established, historical residential areas. This initiative required a General Plan Amendment and rezone that remained in effect until December 31, 2010. The CPAs and Subregions affected by this measure included Alpine, Central Mountain, Desert, Jamul/Dulzura, Julian, Mountain Empire, North Mountain, Pendleton/De Luz, and Ramona, as shown in Table 2.9-3. The General Plan Update does not apply to the lands that were affected by the FCI. A General Plan Amendment will be required to apply new land use designations to the FCI areas. If the proposed land uses would have potentially significant impacts that were not adequately addressed in this EIR, then additional CEQA environmental review will be required.

### San Diego County Multiple Species Conservation Program (MSCP)

The MSCP is a long-term regional conservation plan designed to establish a connected preserve system that ensures the long-term survival of sensitive plant and animal species and protects the native vegetation found throughout San Diego County. The MSCP addresses the potential impacts of urban growth, natural habitat loss, and species endangerment and creates a plan to mitigate for the potential loss of sensitive species and their habitats. The MSCP covers 582,243 acres over 12 jurisdictions, as shown in Figure 2.1-2. Individual jurisdictions can prepare Subarea Plans to implement the MSCP within its boundaries. The County has one Subarea Plan under this program, which was adopted by the BOS on October 22, 1997. This Subarea Plan covers 252,132 acres in the southwestern portion of the unincorporated area. In addition to the Subarea Plan itself, the BMO (adopted March 1998) and the Implementation Agreement between the County and Wildlife Agencies (signed March 1998) are the documents used to implement the South County MSCP. The County is currently developing new Subregional Plans for North County and East County.

### County Trails Program (CTP)

On January 12, 2005, the BOS unanimously approved the adoption of the CTP and the Community Trails Master Plan (CTMP). The CTP will be utilized to develop a system of interconnected regional and community trails and pathways. The components of the CTP include a Regional Trails Plan, CTMP, a new Trails Ordinance (San Diego Code of Regulatory Ordinances Sections 812.101-812.214), and amendments to the County Subdivision Ordinance

(County of San Diego Code of Regulatory Ordinances Title 8, Division 1) regarding dedication and improvement of trails. The CTMP is the implementing document for the trails program and provides a plan for the development of the trail and pathway system, also known as multi-use, non-motorized public facilities. These trails and pathways are intended to address an established public need to provide recreation, transportation, health, and quality of life benefits associated with hiking, biking, and horseback riding throughout the County's biologically diverse environments. The main focus of the CTMP is on development and management guidelines that can be applied to community-level trail systems. The Trails Ordinance is Appendix E of the CTMP and provides rules and regulations for the use of County trails and pathways to maximize the public's use and enjoyment of the trails. The County Subdivision Ordinance required amendments in order to make trail dedication a requirement in areas where trails have been indentified in the CTP.

### County of San Diego Board of Supervisors Policies

Policy 1-63, General Plan Amendment and Zoning Guidelines, specifies the manner in which amendments to the San Diego County General Plan are initiated. The policy seeks to limit growth by restricting planned density increases to areas that currently have the services to support such growth.

Policy 1-104, Policy and Procedure for Preparation of Community Design Guidelines, establishes procedures to ensure adequate community support and citizen involvement in the preparation of community design guidelines.

Policy J-33, Use of the Board of Supervisors' Power of Eminent Domain on Behalf of Private Developers, defines the limitation and circumstances in which the BOS can use the power of eminent domain on behalf of private developers to acquire real property rights for public facilities.

### Zoning Ordinance

The San Diego County Zoning Ordinance is the primary way that the County administers the General Plan. The General Plan identifies general land use designations, while the Zoning Ordinance identifies specific uses and development standards within these land use designations. Future development is required to comply with the Zoning Ordinance and would therefore be consistent with the General Plan Update.

## Other Local Planning Regulations

### San Diego County Regional Air Quality Strategy (RAQS)

The San Diego APCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the air quality in the SDAB. As part of this responsibility, the APCD has created a strategy that lays out a program for attaining the standards for ozone. The strategy, called the RAQS, outlines APCD's plans and control measures specifically designed to attain the California Ambient Air Quality Standards for ozone. The RAQS, initially adopted in 1991, was updated in 1995, 1998, 2001, and most recently in 2004 on a triennial basis. The APCD is in the process of updating the RAQS for 2007.

### San Diego Basin Plan

The Water Quality Control Plan for the San Diego Basin (Basin Plan), most recently amended in 2007, sets forth water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. Specifically, the Basin Plan is designed to accomplish the following: 1) designate beneficial uses for surface and ground waters; 2) set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy; 3) describe mitigation measures to protect the beneficial uses of all waters within the region; and 4) describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Basin Plan incorporates by reference all applicable SWRCB and RWQCB plans and policies.

## 2.9.3 Analysis of Project Impacts and Determination of Significance

### *2.9.3.1 Issue 1: Physical Division of an Established Community*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a potentially significant impact if it would physically divide an established community. For the purposes of this EIR, established communities are defined as established town centers and communities described above in Section 2.9.1.2, such as the established town centers in the Alpine CPA and Ramona CPA, and communities such as Pine Valley in the Central Mountain Subregion and the Mount Helix/Casa de Oro neighborhood in Valle de Oro.

**Impact Analysis**

The proposed project would have the potential to result in the physical division of an established community through placement of a road, railroad, airport, or large open space area. The Mobility Element of the proposed General Plan Update identifies the proposed County roadway network. Large multi-lane roads would have the potential to divide an established community, even though the intent of the road would be to connect areas within the community or improve access to areas within or surrounding the community. In addition, roadways that are proposed for widening would also divide a community by limiting access across the road and having the effect of dividing a community. The General Plan Update roadway network does not include any proposed freeways, but does include several new roads and road extensions, as well as the proposed widening of existing roads throughout the County. The road improvements identified in the Mobility Element for each community are listed in Appendix E to this EIR, Proposed Road Construction/Widening. Forty-five new roads and road extensions and 74 roadway widenings are proposed, as shown in Table 2.9-4. The majority of road improvements are proposed in the CPAs along the western boundary of the unincorporated County, such as Bonsall, San Dieguito, Ramona, and Valle de Oro. However, several new roads and improvements are proposed in the Alpine CPA, as well as a few in the Mountain Empire Subregion and Pala/Pauma Valley Subregion. The proposed roadway network has been designed to respond to the design characteristics that the General Plan Update has identified for village, semi-rural, and rural land use designations. These land use designations are consistent with existing land uses; therefore, proposed road improvements were designed to be generally consistent with existing land uses. However, future roadway development under the proposed General Plan Update

would have the potential to result in new roadways or improvements that would physically divide an established community; therefore, impacts would be potentially significant.

Alternative transportation routes and associated large structures, such as railroad tracks or an airport, could also result in the division of an established community. Similar to roadways, if a new railroad track was built through an established community, it would limit access across the tracks and result in a physical division of the community. Airports are large land uses that typically do not include public roadways or other access within airport boundaries, so that motorists would have to drive all the way around an airport to get to areas on the other side of the airport, increasing travel distance. Therefore, placement of an airport in the middle of an established community would create a physical barrier between areas of the community. The General Plan Update does not propose any new railroad tracks, airports or other features that would physically divide a community.

The General Plan Update would also have the potential to result in the division of an established community if it proposed new areas of open space that would create a physical separation between established community areas and restrict access between these areas. The proposed General Plan Update land use designations recognize and maintain existing open space but do not propose new large areas of open space. The General Plan Update includes Goal COS-23 which encourages the acquisition of open space resources. A policy supporting this goal is Policy COS-23.2 which would maximize opportunities to link regional open space lands. If linkages between open space areas were proposed to cross through established communities, a physical division would result. However, established communities are generally already developed and would be unlikely to contain large open space areas. Additionally, in general the General Plan Update land use map would intensify development densities within established communities, which would result in less open space available for use as a linkage or preserve area. Therefore, the General Plan Update would not result in the division of an established community due to large open space areas. A significant impact would not occur.

**Federal, State and Local Regulations and Existing Regulatory Processes**

There are no relevant codes or regulations related specifically to the division of an established community. Currently, this issue is reviewed as part of General Plan and Community Plan conformance required for discretionary projects. In addition, for those projects that require CEQA analysis, this issue is considered when preparing that documentation.

**Proposed General Plan Update Goals and Policies**

While the proposed General Plan Update does not contain policies that specifically prohibit the construction of features that would physically divide an established community, such as roads, railroads, or airports, it does contain several policies requiring future circulation improvements and developments to be consistent with the character of an established community. The construction of features that would physically divide an established community, such as a large roadway, would not be considered to be consistent with community character.

Policy M-1.3 from the Mobility Element requires the roadway network to comply with community character. This policy implements Goal M-1, which strives for a safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities. Policy M-1.3 would consider narrower rights-of-way, flexibility in design standards and lower design speeds to avoid bisecting communities or town centers. Additionally, Section

2.1.3.3, Issue 3: Visual Character or Quality identifies the following policies from the Land Use, Mobility, and Housing Elements that would require future development to be consistent with community character. These General Plan Update Policies include LU-1.4, LU-2.1, LU-2.3, LU-2.5, LU-4.1 through LU-4.4, LU-11.2, LU-12.4, M-10.6, and H-2.1.

**Summary**

The General Plan Update has the potential result in the division of an established community through the development of new roadways. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with the physical division of established communities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the physical division of an established community and specific implementation programs are identified as mitigation.

### *2.9.3.2 Issue 2: Conflicts with Land Use Plans, Policies, and Regulations*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental impact.

**Impact Analysis**

The proposed General Plan Update would serve as the comprehensive land use plan for the unincorporated areas of San Diego County, if it is adopted by the BOS. However, the unincorporated County is also addressed in regional planning documents including the RCP, RTP, CMP, and SOI plans. In addition, the proposed General Plan Update would be required to be consistent with several adopted land use plans for the region, including the Basin Plan, ALUCPs, RAQS, CTP, and specific plans. Other land use plans that apply to the unincorporated County are being updated as part of the proposed General Plan Update to ensure consistency. These include community plans and the County Zoning Ordinance. The General Plan Update's consistency with these plans is discussed below. General Plan Update compliance with the MSCP and other plans related to biological resources are discussed below in Section 2.9.3.3, Issue 3: Habitat Conservation Plans and NCCPs.

Additional land use plans have been adopted for areas adjacent to the unincorporated County and for the federal and State-owned land located within the County's boundaries. However, these plans do not apply to land under the County's jurisdiction. Therefore, the General Plan Update would not conflict with these plans and further analysis is not required. These plans include:

- Riverside County General Plan
- Imperial County General Plan
- Orange County General Plan

- General Plans for the incorporated cities in the County of San Diego
- South Coast Resource Management Plan
- Land Management Plan - Cleveland National Forest
- Camp Pendleton Integrated Natural Resource Management Plan
- Anza-Borrego Desert State Park General Plan
- Cuyamaca Rancho State Park General Plan

**Regional Comprehensive Plan (RCP)**

The RCP, prepared by SANDAG, is the strategic planning framework for the San Diego region. The plan takes into account build out of the existing general plans prepared for each of the incorporated cities, along with the most recent information from the County's General Plan Update for the unincorporated area (available at the time of the RCP's preparation), and forecasts future population and number of housing units for the entire County. The RCP identifies seven planning elements and recommends goals, policy objectives, and actions for each. The seven elements are: urban form, transportation, housing, healthy environment, economic prosperity, public facilities, and borders. As stated in the RCP, the RCP document was not designed as a regulatory plan, but rather as a guidance plan. SANDAG suggests that agencies incorporate the recommendations of the RCP into their local and regional plans as they update those plans. As plans are updated, SANDAG also updates its regional growth forecast, the RCP, and the RTP. The General Plan Update is not required to comply with the recommendations in the RCP; however, the County considered the RCP goals and implemented them to the extent feasible during the General Plan Update planning process.

The RCP identifies existing and planned Smart Growth Opportunity Areas (SGOA), which are compact, mixed use, pedestrian-oriented developments where a higher priority is placed on providing transportation facility improvements. A specific SGOA category (rural village) was developed by SANDAG to represent the unique community character and development patterns found in unincorporated communities. The SGOA strategy is closely related to the County's community development model for the village, semi-rural, and rural land use categories, and is reflected in the project objectives identified for the General Plan Update, as described in Section 1.3. Objective 2 is to promote sustainability by locating new development near existing infrastructure, services, and jobs; and Objective 6 is to provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns.

The RCP endorses a land use pattern that channels much of the region's future growth into existing urban communities, preserving and protecting the lifestyle and sensitive environment of the rural unincorporated areas. The General Plan Update would be consistent with this land use pattern by proposing higher density village development primarily within the SDCWA boundary and in areas that currently have higher density development, and preserving the rural land uses in areas outside of the SDCWA boundary, primarily in the eastern backcountry portion of the County.

In addition to being consistent with the goals of the RCP, the General Plan Update is also consistent with the SANDAG regional growth projections that are identified in the RCP. Under SANDAG forecasts, the unincorporated County would represent approximately 19 percent of the forecasted population for the entire County in 2030.

### 2030 Regional Transportation Plan (RTP)

The RTP requires that jurisdictions incorporate the planned highway network identified in the RTP into their general plans. The RTP contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the San Diego region through the year 2030. It is focused on the goals of mobility, accessibility, reliability, efficiency, livability, sustainability, and equity. The County considered and incorporated the goals of RTP during the Mobility Element planning process. The Mobility Element is based on the RTP's Reasonably Expected Revenue scenario. The RTP included three roadway network planning scenarios based on constrained, expected, and unconstrained funding. The Reasonably Expected Revenue scenario includes current sources and levels of federal, State, and local transportation revenue projected out to the year 2030, as well as additional sources of transportation revenue that are reasonably expected to become available through 2030, such as increases in State and federal gas taxes based on historical trends. Road network planning for the proposed General Plan Update used the Reasonably Expected Revenue Scenario for RTP assumptions when identifying necessary improvements to the County's road network, which are identified in the Mobility Element. Therefore, the General Plan Update would not conflict with the RTP.

### Congestion Management Program (CMP)

The CMP is a part of SANDAG's RTP and monitors the performance of the region's transportation system, develops programs to address near-term and long-term congestion, and better integrates transportation and land use planning. The CMP requires local jurisdictions to prepare and implement a Deficiency Plan for any deficient CMP roadway. The purpose of a Deficiency Plan is to evaluate the cause of the existing roadway deficiency and to propose remedial actions necessary to address the deficiency. No Deficiency Plans have been adopted for roadways in the unincorporated County; however, plans would be adopted in the future. As stated in Section 2.15, Transportation and Traffic, future development under the General Plan Update would be required to comply with the CMP, including any applicable Deficiency Plans. Mitigation measure Tra-2.10 requires the County to continue to implement the SANDAG CMP and requires large projects to mitigate impacts to the CMP network, including State highways and freeways, regardless of whether or not a Deficiency Plan has been adopted.

Additionally, the CMP identifies a minimally acceptable level of service (LOS) E for the regional transportation network. The proposed Mobility Element establishes LOS standards for the proposed General Plan Update road network. The standard proposed to be adopted by the BOS for the minimally acceptable LOS on Mobility Element roads is LOS D. This is higher than the LOS E standard identified in the CMP. This standard would be imposed on future development of land uses consistent with the General Plan Update. Therefore, the General Plan Update would not conflict with the CMP.

### San Diego Basin Plan (Basin Plan)

The Basin Plan sets forth water quality objectives in order to maintain the beneficial uses of waters within the County. The plan designates the water quality objectives necessary to ensure the reasonable protection of the beneficial uses and describes the implementation plan for achieving and maintaining the beneficial uses and water quality objectives. The Basin Plan objectives are implemented through federal, State, and local regulations and programs, primarily NPDES permits. The proposed General Plan Update is a land use plan to guide future

development in the County; it does not propose any specific development or other projects that would have the potential to directly impact water quality. However, development of land uses consistent with the General Plan Update would have the potential to impact water quality and would be subject to the programs and regulations of the Basin Plan in order to obtain necessary permits. The proposed General Plan Update also provides additional protections for water quality such as Policy LU-6.5, which requires new development to use low impact development techniques to minimize impacts to water quality and the beneficial uses of water resources in the County. Therefore, the General Plan Update would not conflict with the Basin Plan. Refer to Section 2.8.3.1, Issue 1: Water Quality Standards and Requirements, for additional discussion regarding water quality impacts.

**Airport Land Use Compatibility Plans (ALUCPs)**

ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property and aircraft on the ground and in the air in the vicinity of the airport. Six airports located in the unincorporated County have an ALUCP: Agua Caliente Airstrip, Borrego Valley Airport, Fallbrook Community Airpark, Jacumba Airport, Ocotillo Airstrip, and Ramona Airport. The proposed project would result in a potentially significant impact if development under the General Plan Update would conflict with the land use restrictions established by the ALUCPs. ALUCPs are discussed in greater detail in Section 2.7, Hazards and Hazardous Materials. As stated in Section 2.7.3.5, Issue 5: Public Airports, the General Plan Update proposes generally low density development in the proximity of the County airports, or the area surrounding the airport consists of national or State park land. However, some public airports, such as Fallbrook Community Airport, would be surrounded by land uses that would maintain higher density populations, such as village residential. These land uses would have the potential to conflict with ALUCP land use restrictions. However, the Safety Element of the General Plan Update includes Policy S-15.1 that would require land uses surrounding airports to be compatible with the operation of each airport. Future development under the General Plan Update would be required to be consistent with any applicable ALUCP. Therefore, the General Plan Update would not conflict with ALUCPs.

**San Diego County Regional Air Quality Strategy (RAQS)**

The RAQS lays out a program for attaining State $O_3$ standards in San Diego County. The proposed General Plan Update would result in a potentially significant land use conflict if it proposed development greater than that anticipated in regional planning documents because this growth would result in additional emissions not accounted for during preparation of the RAQS. The General Plan Update's compliance with the RAQS is described in detail in Section 2.3.3.1. Issue 1: Air Quality Plans. As stated in that section, the current RAQS is based on projections for residential, commercial, industrial, and recreational land uses contained in the existing General Plan. The proposed General Plan Update would accommodate less growth than the existing General Plan. Additionally, all future development would be required to demonstrate compliance with all strategies and measures adopted as part of the RAQS during the County's environmental review process. Therefore, the General Plan Update would not conflict with the RAQS.

### County Trails Program (CTP)

The CTP develops a system of interconnected regional and community trails and pathways. The CTP provides a plan for the development of the trail and pathway system. The CTP includes community trails maps that depict the general location of future trails within a quarter-mile wide corridor. The Community Trails Master Plan (CTMP) is the implementing document for this program. The proposed General Plan Update would result in a potentially significant land use conflict if it would conflict with the CTMP policies, many of which mitigate environmental impacts. These policies are included in the CTMP and in the existing General Plan Public Facilities Element. Some of the CTMP policies are also included in the General Plan Update. Table 2.9-5 identifies which CTMP policies are included in the General Plan Update and the corresponding General Plan Update policy number. Future development under the General Plan Update would be required to comply with all CTMP policies, including those not identified specifically in the General Plan Update, through Policy M-12.1, which requires implementation of a County Trails Program in accordance with the proposed trail alignments and goals and policies identified in the CTMP. Future development accommodated by the General Plan Update would undergo the County's regulatory and environmental review process for project approval, which includes review of the project compliance with the CTP. When an application for a specified discretionary development permit is submitted for land that includes a CTP trail corridor, the specific location of a proposed trail within the trail corridor would be determined based on a route study. The environmental review for the proposed discretionary project would include a site-specific analysis of the trail proposed in the route study. See Section 2.14, Recreation, for additional discussion regarding the CTP and its components. As stated in Section 2.14.3.1, Issue 1: Deterioration of Parks and Recreational Facilities, future development under the General Plan Update would be required to comply with the CTP. Therefore, the General Plan Update would not conflict with the CTP.

### Sphere of Influence (SOI)

As described above and shown in Figure 2.9-2, 18 communities within the unincorporated County are affected by SOI from 11 of the surrounding jurisdictions. Since the SOI are within the County's jurisdiction, they are included in the General Plan Update and designated for specific land uses. In most cases, the adjacent city also plans land uses for these areas with the intent that the areas will eventually be annexed into the city's jurisdiction. As described in Section 2.9.2.1, State Regulations, LAFCO regulates local agency boundary changes including annexation of unincorporated land into incorporated cities. Because these areas are not yet under the jurisdiction of the adjacent cities, the land use designations within the SOI do not have to match the cities' plans for these areas. However, as part of the General Plan Update process, the SOI were reviewed for comparison with the adjacent cities' proposed land use designations.

County General Plan Update land uses proposed in the SOI of Chula Vista and Poway are the same as the uses proposed by the cities. Chula Vista's SOI extends into the unincorporated County to the north (Sweetwater CPA) and east (Otay CPA). The Poway SOI extends into the Ramona CPA to the east and southeast of the City. The SOI of Carlsbad, Lemon Grove, Oceanside, San Diego, Santee, and Solana Beach do not extend beyond the City boundaries; therefore, no SOI land uses are proposed in the unincorporated County for these cities.

The proposed General Plan Update designations are generally similar to the land uses proposed by the cities for the Encinitas, La Mesa, and National City SOI. Encinitas' SOI

extends into the San Dieguito CPA to the northeast. Encinitas proposes rural residential land use in its SOI, which is consistent with the General Plan Update's designation of semi-rural residential (1 du/4, 8, or 16 acres) and open space. The La Mesa SOI extends to the east into the community of Valle de Oro CPA. The General Plan Update proposes a portion of this area for village residential (2 du/acre) and semi-rural residential (1 du/0.5 acre), comparable with La Mesa's intended rural residential use (1-2 du/acre). National City's SOI extends into the County Islands community of Lincoln Acres in the southeast portion of the City. National City has identified single family small lots, open space, and a cemetery for this area, similar to the General Plan Update's proposed uses. The General Plan Update also designates an area in this SOI as village residential (15 du/acre), which is more intensive than the small lot single family units identified for that area by National City; however both designations are considered higher density residential uses.

Some land uses proposed in the General Plan Update are substantially different than those shown in city plans for a given location within a SOI. These differences occur within the SOI of El Cajon, Escondido, San Marcos, and Vista. The areas of difference, and the proposed land uses, are listed in Table 2.9-6 and depicted in Figures 2.9-3 through 2.9-6. El Cajon's SOI extends north into Lakeside CPA as well as east into the Crest/Dehesa CPA. Within its SOI, there are 12 areas where El Cajon's proposed uses are dissimilar and generally less intense than the designations proposed by General Plan Update (Figure 2.9-3 and Table 2.9-6). Escondido's SOI extends into the North County Metro Subregion and Valley Center CPA; however, the areas of difference identified only occur in North County Metro. As shown on Figure 2.9-4, there are 12 disparate areas in the Escondido SOI, most of which are proposed for higher density or intensity under the General Plan Update (see Table 2.9-6). The SOI for San Marcos extends into the North County Metro Subregion as well as the San Dieguito CPA. Of the 13 areas of difference found in the San Marcos SOI, nine are proposed as higher density residential under General Plan Update when compared to the city's plan (Figure 2.9-5 and Table 2.9-6). Vista's SOI extends to the north into the Bonsall CPA as well as east and west into the North County Metro Subregion. While the areas of difference in the Bonsall portion of the SOI would have lesser density under the General Plan Update, the areas identified in North County Metro would have substantially higher density than the designations proposed by Vista for those locations (Figure 2.9-6 and Table 2.9-6). As stated above, these areas are not yet under the jurisdiction of the adjacent cities. As such, the proposed differences described above would not result in any conflicts with applicable land use plans, policies, or regulations agencies with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental impact. However, it should be also noted that the Land Use Element contains Policies LU-4.1 and LU-4.2 that would require the County to participate in regional planning and review, comment, and coordinate when appropriate on plans, projects, and proposals of overlapping or neighboring agencies. This will serve to promote compatibility in land use planning and development while minimizing adverse environmental effects.

**Community Plans**

Community plans are adopted by the BOS as part of the General Plan, and thus are consistent with its components and would only be amended as part of a General Plan Amendment. The proposed project includes reviewing each Community Plan and removing any language that is inconsistent with the General Plan Update. Some Community Planning Groups are in the process of updating their community plans in parallel with the General Plan Update process. Some of the groups have completed vision and background information and are now creating policies for inclusion in their community plan. The updated community plans would be adopted

by the BOS with or shortly after the adoption of the proposed General Plan Update project. Additional updates to the community plans would also be made after the adoption of the General Plan Update. Therefore, the proposed General Plan Update would not conflict with adopted community plans.

**Zoning Ordinance**

As mandated by the State, the Zoning Ordinance must be consistent with the General Plan Update. Therefore, the County Zoning Ordinance would be updated as part of the proposed project. The updated Zoning Ordinance would be adopted by the BOS within two years of the adoption of the General Plan Update, in order to ensure consistency with this plan. Therefore, the proposed General Plan Update would not conflict with the Zoning Ordinance.

**Specific Plans**

The proposed General Plan Update includes a specific plan land use designation that only applies to areas that have specific plans that have either already been approved on implemented. Future specific plans would be required to comply with the existing General Plan Update land use designations. Therefore, the proposed project would be consistent with existing and future specific plans.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The relevant policies of local plans that apply to the General Plan Update are discussed individually in the impact analysis above. Moreover, California Planning and Zoning Law Section 65067 mandates coordination of local efforts within a region to help prevent conflicts among land use plans, policies and regulations. As discussed in Section 2.9.2, Regulatory Framework, LAFCO regulations and policies assist local agencies with jurisdictional boundary changes. LAFCO's primary goals are to encourage orderly growth, promote logical and efficient public services for cities and special districts, streamline governmental structure, and discourage premature conversion of prime agricultural and open space lands to urban uses.

Current County processes require a comprehensive review of applicable plans, policies, and regulations for all discretionary projects. Processes for ministerial permits have focused reviews for those regulations that directly affect the decision. For discretionary reviews, CEQA compliance is the primary means for accomplishing these reviews. This includes a review of relevant plans and regulations by staff, as well as notifying other agencies of projects so that they would also review the projects for compliance with their plans.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update goals and policies that are intended to avoid conflicts with other applicable land use plans are identified above under the discussion of each land use plan. The identified policies that apply to land use plan consistency are Policies LU-4.7, LU-6.5, S-15.1, M-12.1, LU-4.1 and LU-14.1.

**Summary**

The General Plan Update would not conflict with applicable land use plans, policies, and regulations, including the RCP, RTP, CMP, Basin Plan, ALUCPs, RAQS, CTP, SOI, community plans, Zoning Ordinance, and specific plans. Therefore, a potentially significant impact would not occur.

### *2.9.3.3 Issue 3: Conflicts with HCPs or NCCPs*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would be considered to have a significant impact if it would conflict with any applicable HCP or NCCP.

**Impact Analysis**

Refer to Section 2.4.2.5, Issue 5: Local Policies and Ordinances and Section 2.4.3.6, Issue 6: Habitat Conservation Plans and NCCPs for detailed discussions of the project's consistency with applicable adopted HCPs and NCCPs. As discussed in these sections, future projects proposed under the General Plan Update would be required to comply with applicable HCPs and NCCPs. Regulatory processes to ensure compliance are already in place and would not be altered by the General Plan Update. Therefore, the proposed project would not conflict with any applicable HCP or NCCP and impacts would be less than significant.

## 2.9.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for land use is the San Diego region, including jurisdictions and special districts within and adjacent to the unincorporated County.

### *2.9.4.1 Issue 1: Physical Division of an Established Community*

Cumulative projects would include the construction of new or widened roadways, airports, railroad tracks, open space areas, or other features that would individually have the potential to physically divide an established community. In addition to these larger projects, smaller cumulative projects could have the effect of providing a barrier to access that would physically divide a community. Such impacts would generally be limited to an individual community. Multiple projects in the same community could combine to result in a cumulative effect to the division of that community. Cumulative projects in adjacent counties and incorporated cities would be required to comply with applicable land uses plans. However, for projects in Mexico or on tribal lands, planning documents would or would not exist and/or be regularly enforced. Therefore, cumulative projects would have the potential to result in a significant cumulative impact associated with the physical division of an established community.

The General Plan Update has the potential to contribute to this cumulative impact only as it pertains to new roads, road extensions and roadway widenings because other land uses that could divide a community, such as a railroads and airports are not proposed in the General Plan Update and, large open space areas are not proposed in areas that would affect established communities, which is described above under Section 2.9.3.1, Issue 1: Physical Division of an Established Community.

As discussed above, future roadway development under the proposed General Plan Update would have the potential to result in new roadways or improvements that would physically divide an established community. The General Plan Update roadway network does not include any proposed freeways, but does include several new roads and road extensions, as well as the proposed widening of existing roads throughout the County. The road improvements identified in the Mobility Element for each community are listed in Appendix E to this EIR, Proposed Road Construction/Widening. Therefore, in combination with other cumulative projects, the proposed project would have the potential to provide a considerable contribution to a significant cumulative impact.

### *2.9.4.2 Issue 2: Conflicts with Land Use Plans, Policies, and Regulations*

The cumulative projects in the San Diego region would have the potential to result in a cumulative impact if they would, in combination, conflict with existing land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Similar to the General Plan Update, cumulative projects in the San Diego region would utilize regional planning documents such as the RCP and RTP during planning, and the general plans of adjacent jurisdictions and counties would be consistent with the regional plans, to the extent that they are applicable. Cumulative projects in these jurisdictions would be required to comply with the applicable land use plan or they would not be approved. Cumulative projects listed in Table 1-11, Projects Not Included in the Proposed General Plan Update Land Use Map, such as the Heald residential development in Mountain Empire, would require a general plan amendment or tentative map or other approval in order to be consistent with the existing General Plan or they would not be approved. Additionally, projects in Mexico and on tribal lands would not be required to comply with State or local plans, policies or regulations. However, they would be required to comply with applicable land use plans for these areas, to the extent that they exist.

As discussed above, implementation of the proposed General Plan Update would not conflict with existing land use plans, policies, or regulations of agencies with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental impact. Therefore, the proposed General Plan Update would not contribute to a significant cumulative impact.

### *2.9.4.3 Issue 3: Conflicts with HCPs or NCCPs*

As described in Section 2.4.4.6, Habitat Conservation Plans and NCCPs, cumulative projects in the region would not result in a significant cumulative impact associated with conflicts with applicable HCPs or NCCPs. Therefore, the proposed project would not contribute to a significant cumulative impact. See Section 2.4.4.6 for a more detailed discussion.

## 2.9.5 Significance of Impact Prior to Mitigation

The proposed General Plan Update would result in potentially significant impacts associated with the physical division of an established community. The proposed project would not result in a potentially significant impact associated with conflicts with local plans, policies, regulations, or applicable HCPs and NCCPs.

## 2.9.6 Mitigation

### *2.9.6.1 Issue 1: Physical Division of an Established Community*

Implementation of the following General Plan Update policies, and mitigation measures, would mitigate impacts associated with proposed new, extended or widened roadways that would physically divide an established community to below a significant level.

**General Plan Update Policies**

**Policy LU-1.4: Village Expansion**. Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding
- Potential Village development would be accommodated by the General Plan road network
- Public facilities and services can support the expansion without a reduction of services to other County residents
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area

**Policy LU-2.1: Community Plans.** Maintain updated Community Plans, as part of the General Plan, to guide development to reflect the character and vision for each individual unincorporated community, consistent with the General Plan.

**Policy LU-2.3: Development Densities and Lot Sizes.** Assign densities and minimum lot sizes in a manner that is compatible with the character of each unincorporated community.

**Policy LU-2.5: Greenbelts to Define Communities.** Identify and maintain greenbelts between communities to reinforce the identity of individual communities.

**Policy LU-4.1: Regional Planning.** Participate in regional planning to ensure that the unique communities, assets, and challenges of the unincorporated lands are appropriately addressed with the implementation of the planning principles and land use requirements of SB375.

**Policy LU-4.2: Review of Impacts of Projects in Adjoining Jurisdictions.** Review, comment, and coordinate when appropriate on plans, projects, and proposals of overlapping or neighboring agencies to ensure compatibility with the County's General Plan, and that adjacent communities are not adversely impacted.

**Policy LU-4.3: Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

**Policy LU-4.4: Development Compatibility with Military Facilities.** Ensure compatibility of new development with the current and planned mission and operations of U.S. government military installations.

**Policy LU-11.2: Compatibility with Community Character.** Require that commercial, office, and industrial development be located, scaled, and designed to be compatible with the unique character of the community.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Policy M-10.6: On-Street Parking.** Minimize on-street vehicular parking outside Villages and Rural Villages where on-street parking is not needed, to reduce the width of paved shoulders and provide an opportunity for bicycle lanes to retain rural character in low-intensity areas. Where on-street parking occurs outside Villages and Rural Villages, require the design to be consistent with the rural character. [See applicable community plan for possible relevant policies.]

**Policy H-2.1: Development that Respects Community Character.** Require that development in existing residential neighborhoods be well designed so as not to degrade or detract from the character of surrounding development consistent with the Land Use Element. [See applicable community plan for possible relevant policies.]

**Policy M-1.3: Treatment of High-Volume Roadways.** To avoid bisecting communities or town centers, consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads, through landscaping, design, and/or careful location of facilities.

**Mitigation Measures**

**Lan-1.1** Coordinate with adjacent cities and other agencies regarding planning efforts and resource protection. This includes working with SANDAG during updates to the RTP to ensure that regional roads are properly planned, sited, and designed. Additional on-going consultations include coordination with state, federal, and local agencies regarding the high speed rail, the Sunrise Powerlink, and tribal casinos.

**Lan-1.2** Coordinate with land owners, other departments, and community groups to ensure that both public and private development projects and associated infrastructure minimize impacts to established communities. This involves community input and General Plan conformance reviews on County road projects to insure that County road planning and development is consistent with the General Plan. This also includes analysis of potential environmental impacts for public and private road projects and application of mitigation measures pursuant to CEQA. DPW policies and procedures shall be evaluated to ensure that such reviews are conducted and that issues regarding potential division of

communities are identified and addressed. General Plan Amendments that propose changes to the circulation network shall be kept consistent with the General Plan Goals and Policies, and such proposals will also be reviewed by the communities. In addition, Board Policy I-63 and/or department procedures will be updated to meet this standard.

**Lan-1.3** Maintain plans and standards for infrastructure and roads so that divisions of communities do not occur. This will include: 1) updates to County Road Standards to ensure that roads are designed and built in a safe manner consistent with the General Plan and community context; 2) adherence to Community Plans to guide infrastructure planning in the individual and unique communities of the County; 3) evaluation and, if necessary, revisions to the subdivision ordinance to ensure future project designs, and corresponding infrastructure designs, are consistent with the General Plan and with established community character; 4) preparation of local public road network plans to improve mobility, connectivity, and safety; and 5) preparation of community road standards that supplement the County road standards in order to recognize the unique constraints and character of different communities.

### *2.9.6.2 Issue 2: Conflict with Land Use Plans, Policies, and Regulations*

Impacts associated with conflicts with applicable land use plan, policies, or regulations would be less than significant; therefore, no mitigation is necessary.

### *2.9.6.3 Issue 3: Conflict with HCPs or NCCPs*

Impacts associated with conflicts to adopted HCPs and NCCPs would be less than significant; therefore, mitigation is not required.

## 2.9.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.9.7.1 Issue 1: Physical Division of an Established Community*

Implementation of the proposed General Plan Update would have the potential to result in the physical division of an established community from the construction, expansion or widening of a roadway. Therefore, the proposed project would result in a potentially significant impact. In addition, the proposed project would result in a potentially significant cumulative impact. However, implementation of the proposed General Plan Update policies and mitigation measures would mitigate the direct and cumulative impacts to below a level of significance.

### *2.9.7.2 Issue 2: Conflicts with Land Use Plans, Policies, and Regulations*

Implementation of the proposed General Plan Update would not conflict with applicable land use plans, policies, and regulations. Therefore, a potentially significant impact would not occur. In addition, the General Plan Update would not contribute to a significant cumulative impact associated with conflicts with land use plans, policies or regulations.

### *2.9.7.3 Issue 3: Conflicts with HCPs or NCCPs*

Implementation of the proposed General Plan Update would conflict with any applicable HCP or NCCP. Therefore, a potentially significant impact would not occur. Additionally, the proposed project would not contribute to a significant cumulative impact associated with conflicts with HCPs or NCCPs.

## Table 2.9-1. Existing Land Use Types

| | |
|---|---|
| **Residential** | |
| Low Density Residential | Single-family homes located in rural areas with lot sizes of approximately 1 to 10 acres. Homes in areas of lower densities are coded as agricultural or vacant, not residential. Rural residential estates may have small orchards, fields, or small storage buildings associated with the residential dwelling unit. |
| Single-Family | Single family detached housing units, on lots smaller than 1 acre. Newer developments may include clubhouses, recreation areas, pools, tennis, etc. located within and associated with the residential development, if a separate parcel/lot designation does not exist. |
| Mobile Home | Mobile home parks with 10 or more spaces that are primarily for residential use. RV parks are included within the commercial recreation category. |
| Multi-Family | Attached housing units, two or more per structure. This classification includes duplexes, townhouses, condominiums, apartments and single-room occupancy. Newer developments may include clubhouses, recreation areas, pools, tennis, etc. located within and associated with the residential development, if a separate parcel/lot designation does not exist. |
| **Commercial** | |
| Commercial and Office | i. Wholesale Trade – Usually located near transportation facilities. Structures area usually large and cover the majority of the parcel.<br>ii. Neighborhood Shopping Centers – Usually less than 10 acres in size with on-site parking.<br>iii. Specialty Commercial Centers – Usually have shopping associated with tourism or a very particular classification.<br>iv. Auto Dealerships<br>v. Storefront Commercial – Includes commercial activities found along major streets with limited on-site parking. Mixed-use may also be associated with these areas.<br>vi. Other Retail<br>vii. High Rise Office – Buildings with more than four stories containing banking, offices for business and professional services, and some retail activities and restaurants.<br>viii. Low Rise Office – Buildings with less than 5 stories containing banking, offices for business and professional services, and some retail activities and restaurants.<br>ix. Government/Civic Centers<br>x. Hotels, Motels, and Resorts |
| Shopping Centers | Includes Regional Shopping Centers, which usually have 1-5 major department stores, more than 50 tenants, and are larger than 40 acres. In addition, this also includes Community Commercial (smaller than the Regional), which usually has 15-50 tenants on only 8-20 acres. |
| Commercial Recreation | Includes public and private golf courses, clubhouses (tennis and swimming facilities), stadiums/sports arenas, racetracks, convention centers, marinas, and other major tourist attractions. Other recreational opportunities include RV parks, drive-in theaters, campgrounds, boys/girls clubs, YMCAs, rifle ranges, casinos, rodeo grounds, senior recreation centers, and movie theaters. |

**Table 2.9-1 (Continued)**

| | |
|---|---|
| **Industrial** | |
| Light Industry | Includes industrial parks (office/industrial uses clustered into a center). Primary uses are industrial, but may include a high percentage of other uses in service or retail activities). Also contains general light industry not included above. Usually located along major streets or clustered in certain areas. Includes manufacturing and light industrial such as auto repair and recycling services. The light industry category also includes warehouses and public storage, usually large buildings found near freeways, industrial or strip commercial areas. |
| Heavy Industry | Includes shipbuilding, airframe, and aircraft manufacturing. Usually, this type of use is located close to transportation facilities and commercial areas. Parcels are typically large (approximately 20-50 acres). This use does not appear in any CPA or Subregion within the unincorporated areas of the County. |
| Extractive Industry | Mining, sand and gravel extraction and salt evaporation. |
| **Facilities[(1)]** | |
| Education | Includes school district offices and all types of schools (including adult schools, non-residential day care and nursery schools). |
| Communications / Utilities | Television/radio stations, relay towers, electrical power generating plants, and water/sewer treatment facilities are classified under this category. |
| Institutions | This category includes all public services (hospitals, cemeteries, churches, libraries, post offices, fire/police stations, missions, museums, social service agencies and humane societies and other cultural facilities). It also includes group quarters, jails/prisons, dormitories, monasteries, convalescent or retirement homes (not associated with or within a health care facility), rooming houses, half-way houses, California Conservation Corps, Honor Camps and healthcare facilities. |
| **Circulation/Transportation[(2)]** | |
| Freeways/Roads | All streets and rights-of-way, including freeway interchange areas. |
| Other Transportation | Rail stations, railroads, marine terminals and rights-of-way for transmission lines are included in this category. It also includes parking lots, landfills, and dumps as well as maintenance yards, transit and railroad yards and their associated activities.[3] |
| Airports[(2)] | Includes military airports, commercial airports, general aviation airports and airstrips. |
| **Open Space** | |
| Parks[(4)] | There are a number of types of parkland. Parks can be in active recreational use, passive use or in open space preserves and reserves.<br>i. BLM – Land classified as BLM includes areas that are under the jurisdiction of the federal Bureau of Land Management, which is under the U.S. Department of the Interior.<br>ii. City – This category includes city-owned parks that are in the unincorporated area. An example of this is a park adjacent to the San Vicente Reservoir. The park is owned by the city of San Diego and is within the unincorporated area.<br>iii. County – The county park category contains lands that are in the unincorporated area and are on County-owned land and operated by the County Department of Parks and Recreation.<br>iv. U.S. Forest Service – Like BLM lands, these areas are under federal jurisdiction. The U.S. Forest Service is within the U.S. Department of Agriculture.<br>v. State – Parks that are owned by and/or under jurisdiction of the State of California.<br>vi. Private – This category includes open space, and land that is owned by the Nature Conservancy, the Trust for Public Land and other land preservation groups. |

**Table 2.9-1 (Continued)**

| | |
|---|---|
| | vii. Other, water/sanitation, special district – Land in this category includes a variety of parkland owned by the Sweetwater Authority, San Diego Gas & Electric, the County Water Authority, Valley Center Community Services District, the Spring Valley Parks & Recreation District and the San Diego & Arizona Eastern Railway.<br>viii. Military – This classification appears only in one unincorporated Plan Area, and includes military-owned parkland as well as beach and open space within the Camp Pendleton base area. |
| Intensive Agriculture[5] | Intensive agriculture includes row crops, grains, nurseries, greenhouses, flower fields, dairies, livestock, poultry and equine ranches as well as orchards and vineyards. |
| Extensive Agriculture[5] | Pasture, grazing and fallow lands are included in this category. This use does not appear in any CPA or Subregion within the unincorporated areas of the County. |
| Water[6] | This category includes the acreage of water bodies in the unincorporated area, such as reservoirs, lakes, rivers and streams. |
| Undeveloped | This category includes all land that is not built upon. However, "undeveloped" does not necessarily mean "developable" because no environmental or other constraints are assumed on land within this category. In order to determine how much of the land is developable, analysis is required to determine environmental and other constraints that will contribute to or limit the capacity of these areas for development. |
| **Tribal Lands[7]** | |
| | Lands designated as Indian Reservation Land by an Act of Congress in the case of Indian Reservations. On such lands, the County of San Diego has no jurisdiction over specific activities and/or land uses. |

(1) Additional information on public facilities can be found in Section 2.13, Public Services, and Section 2.16, Utilities and Service Systems.
(2) Additional information on circulation can be found in Section 2.15, Transportation and Traffic.
(3) Additional information on circulation can be found in Section 2.15, Transportation and Traffic.
(4) Specific acreages of junkyards, dumps, and landfills within each community have been pulled out of this grouping.
(5) Additional information on parks and recreation facilities can be found in Section 2.14, Recreation.
(6) Additional information on agriculture can be found in Section 2.2, Agriculture.
(7) Additional information on water features can be found in Section 2.16, Utilities and Service Systems.

Source: SANDAG 2008

## Table 2.9-2. San Diego County Land Use Distribution Totals

| General Land Use | Acreage |
|---|---|
| **Residential Total** | **108,714** |
| Low Density Residential | 70,802 |
| Single Family | 33,022 |
| Mobile Homes | 1,924 |
| Multiple Family | 2,966 |
| **Commercial Total** | **7,355** |
| Commercial & Office | 1,416 |
| Commercial Recreation | 5,809 |
| Shopping Centers | 130 |
| **Industrial Total** | **2,553** |
| Light Industry | 1,001 |
| Heavy Industry | 0 |
| Extractive Industry | 1,552 |
| **Facilities Total** | **5,486** |
| Education | 1,729 |
| Communication – Utilities | 1,768 |
| Institutions | 1,989 |
| **Circulation Total** | **42,915** |
| Freeways/Roads | 38,972 |
| Miscellaneous Transportation | 2,651 |
| Junkyards, dumps, landfills | 905 |
| Airports | 1,292 |
| **Open Space Total** | **1,004,253** |
| Parks | 839,034 |
| Intensive Agriculture | 165,219 |
| Extensive Agriculture | 0 |
| **Miscellaneous Totals** | |
| Military | 123,834 |
| Undeveloped/Vacant | 975,784 |
| Water | 11,287 |
| Miscellaneous | 1,906 |
| **Total** | **2,284,087** |

Source: SANDAG 2001

## Table 2.9-3. FCI Acreage Totals by Community Planning Area

| Community | Acreage |
|---|---|
| Alpine | 15,100 |
| Central Mountain | 30,635 |
| Desert | 190 |
| Jamul | 1,434 |
| Julian | 9,675 |

| Community | Acreage |
|---|---|
| Mountain Empire | 2,879 |
| North Mountain | 27,861 |
| Pendleton/De Luz | 1,506 |
| Ramona | 1,708 |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007c

## Table 2.9-4. Proposed Road Improvements by Community

| CPA/Subregion | Number of New Roads or Extensions | Number of Roads to be Widened | Total Improvements |
|---|---|---|---|
| Alpine | 5 | 3 | 8 |
| Bonsall | 0 | 7 | 7 |
| County Islands | 1 | 1 | 2 |
| Crest/Dehesa | 0 | 4 | 4 |
| Fallbrook | 4 | 7 | 11 |
| Jamul/Dulzura | 0 | 1 | 1 |
| Lakeside | 6 | 9 | 15 |
| Mountain Empire | 0 | 2 | 2 |
| North County Metro | 8 | 15 | 23 |
| Otay | 10 | 1 | 11 |
| Pala Pauma Valley | 1 | 0 | 1 |
| Rainbow | 1 | 0 | 1 |
| Ramona | 3 | 4 | 7 |
| San Dieguito | 1 | 2 | 3 |
| Spring Valley | 0 | 2 | 2 |
| Sweetwater | 1 | 2 | 3 |
| Valle de Oro | 0 | 10 | 10 |
| Valley Center | 4 | 4 | 8 |
| **Total** | **45** | **74** | **119** |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2008j

## Table 2.9-5. CTMP Policies and Corresponding General Plan Update Policies

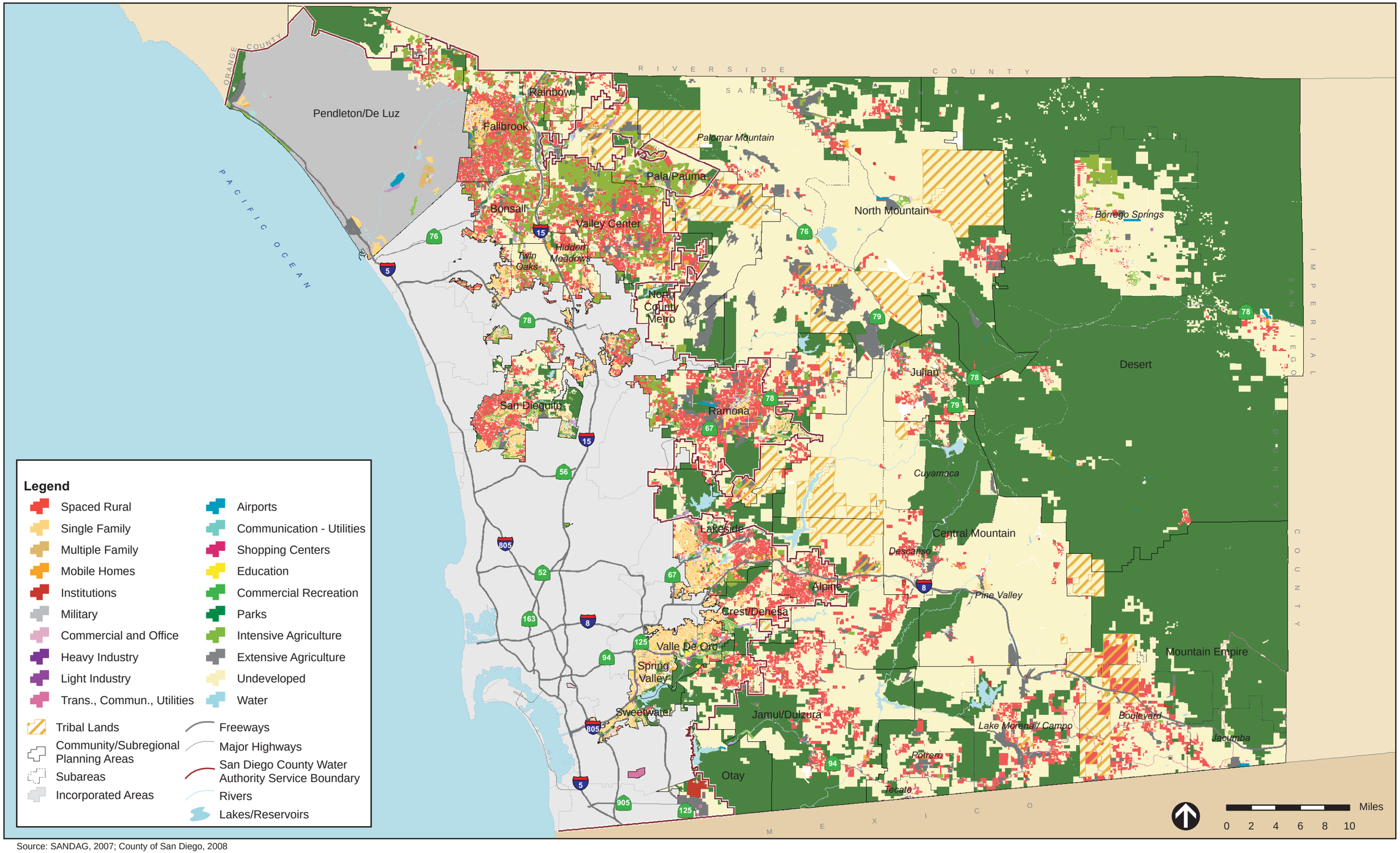
| CTMP Policy | Corresponding General Plan Update Policy |
|---|---|
| **CP 1.1** Continue to provide and expand the variety of trail experiences, including urban/suburban, rural, wilderness, multi-use and single use, staging areas and support facilities. | Policy M-12.2 |
| **CP 1.2** Encourage trail routes that highlight the County's recreational and educational resources, including natural, scenic, cultural and historic resources whenever possible. | Policy M-12.10 |
| **CP 2.2** Coordinate trail planning, acquisition, development, and management with appropriate jurisdictions. | Policy M-12.3 |
| **CP 3.1** Seek opportunities to designate or construct future trails on County-owned lands, such as parks, open space preserves and/or lands within the MSCP or other lands already under public ownership or proposed for public acquisition. | Policy M-12.5 |
| **CP 3.3** Seek trail opportunities through easements, dedications, license agreements, or joint-use agreements with public and semi-public agencies including utility districts, school districts, water districts, transportation agencies, and parks and open space agencies. | Policy M-12.6 |
| **CP 3.4** Secure trail routes across private lands through purchase, easements, and dedication or by other means from a willing property owner/seller. | Policy M-12.8 |
| **CP 3.7** Development projects and other discretionary projects proposed on lands upon which a trail or pathway in the Regional Trail Plan or Community Trails Master Plan has been identified may be required to dedicate and improve land for trail or pathway purposes. | Policy M-12.4 |
| **CP 3.8** Seek to establish funding opportunities for trail acquisition, implementation, maintenance, and operation. | Policy M-12.7 |
| **CP 4.7** When locating specific trail segments, prioritize locations that avoid significant impacts to sensitive environmental resources. | Policy M-12.9 |

Source: CTP 2005

## Table 2.9-6. Proposed Sphere of Influence (SOI) Land Use Differences

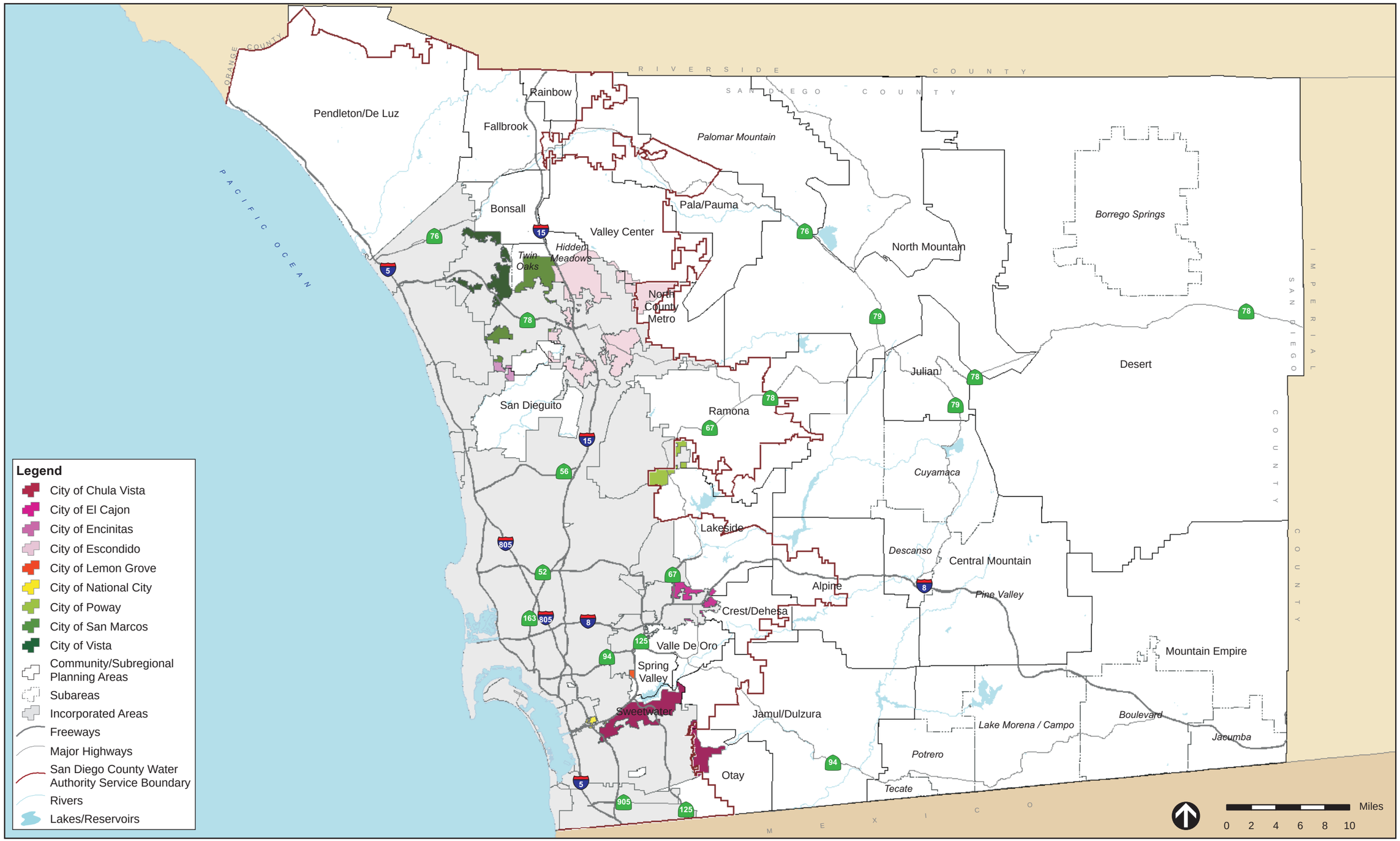
| City | CPA/Subregion within SOI | Area Name[(1)] | City Designation | General Plan Update Designation |
|---|---|---|---|---|
| El Cajon | Lakeside | EC1 | 3-18 du/ac | 24 du/ac |
| | | EC2 | 10-18 du/ac | 7.3 du/ac |
| | | EC3 | School Playground/Playfield | 7.3 du/ac |
| | | EC4 | Community Park | 4.3 du/ac |
| | | EC5, 6, 8-9 | Open Space | 1 du/1,2,4ac – 4.3 du/ac |
| | | EC7 | 0-3 du/ac | Public/Semi-Public Facilities |
| | Crest/Dehesa | EC10, 11, 13 | Open Space | 1 du/1,2,4 ac – 1 du/2,4,8 ac |
| | | EC12 | 0-3 du/ac | General Commercial |
| Escondido | North County Metro | E1 | 1 du/4,8,20 ac and 1 du/2,4,20 ac | Specific Plan |
| | | E2 | Specific Plan | 1 du/4,8,16 ac and 1 du/20 ac |
| | | E3 | Public Lands/Parks and Specific Plan | 1 du/20 ac |
| | | E4 | 1 du/4,8,20ac | 7.3 du/ac |
| | | E5 | 1 du/0.5,1,20 ac | 7.3 du/ac |
| | | E6 | 1 du/0.5 to 1 du/20 ac | 2 du/ac |
| | | E7 | Specific Plan | 1 du/20 ac |
| | | E8 | 1 du/4,8,20ac | Open Space |
| | | E9 | 1 du/4,8,20 ac to 1 du/2,4,30 ac | 2 du/ac |
| | | E10 | 1 du/2,4,20 ac | Specific Plan |
| | | E11 | 1 du/1,2,4,20 ac | 2 du/ac |
| | | E12 | 1 du/4,8,20ac | High Impact Industrial |
| | Valley Center | E13 | Specific Plan | 1 du/4,8,16 ac and 1 du/20 ac |
| San Marcos | North County Metro | SM1 | 1 du/8ac | 1 du/10 ac to 1 du/20 ac |
| | | SM2 | 1 du/8 ac | 1 du/1,2,4 ac |
| | | SM3,4 | 1 du/8 ac | 2.9 du/ac |
| | | SM5 | 4-8 du/ac and 12-15 du/ac | 10.9 du/ac |
| | | SM6 | 12-15 du/ac | 24 du/ac |
| | | SM7 | 4-8 du/ac | 24 du/ac |
| | | SM8 | 1 du/8 ac | 1 du/1,2,4 ac |
| | | SM9 | 1 du/8 ac | 1 du/1,2,4 ac |
| | | SM10 | 1 du/8 ac | 7.3 du/ac |
| | | SM11 | 1 du/8 ac | 2 du/ac |
| | | SM12 | 1 du/8 ac | 4.3 du/ac |
| | | SM13 | Light Industrial | 1 du/1,2,4 ac |
| | San Dieguito | SM14 | Light Industrial | 1 du/1,2,4 ac |
| Vista | Bonsall | V1 | 1 du/ac | 1 du/2,4,8 ac |
| | | V2 | 2 du/ac | 1 du/1,2,4 ac |
| | North County Metro | V3 | 2 du/ac | 7.3 du/ac |
| | | V4 | Open Space / 2 du/ac | 4.3 du/ac |
| | | V5 | 2 du/ac | 30 du/ac |
| | | V6 | 5 du/ac | 15 du/ac |
| | | V7 | 1 du/ac – 2 du/ac | 4.3 du/ac |

(1) Corresponds with locations shown on Figures 2.9-3, 2.9-4, 2.9-5, and 2.9-6.
Source: DPLU 2008k




Source: SANDAG, 2007; County of San Diego, 2008

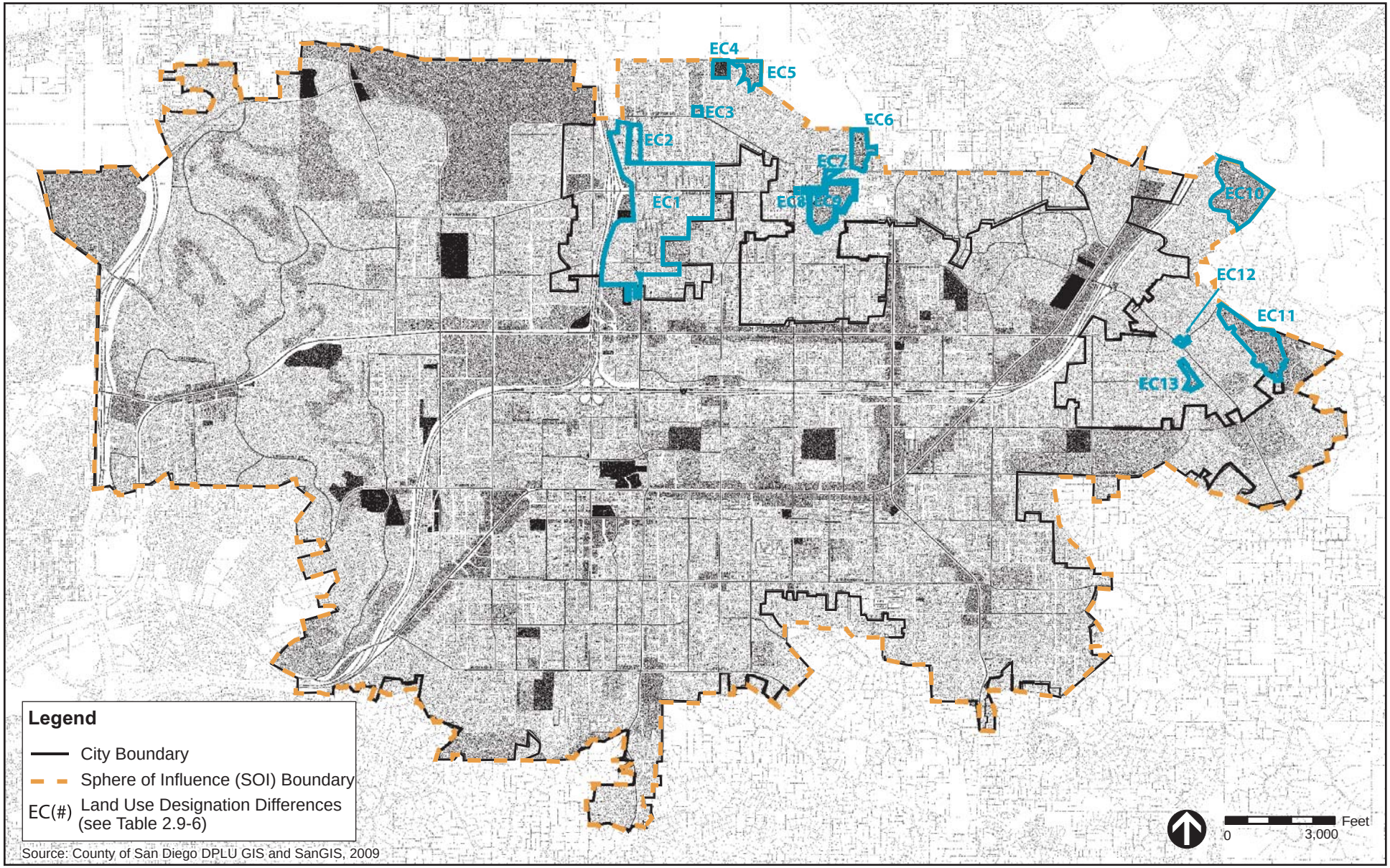
**EXISTING LAND USES** **FIGURE 2.9-1**



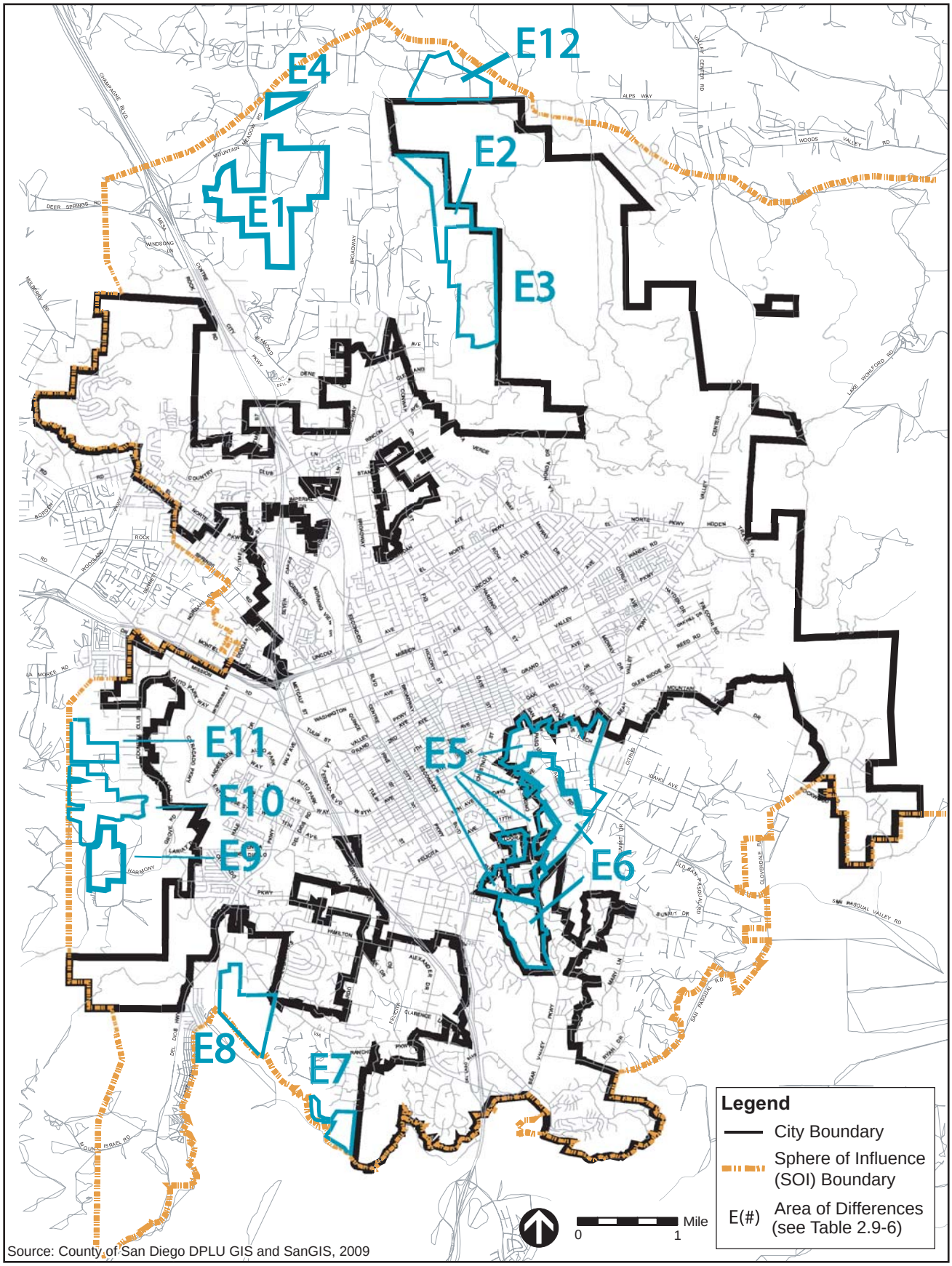

Source: LAFCO, 2008; County of San Diego, 2008

## COUNTYWIDE SPHERES OF INFLUENCE

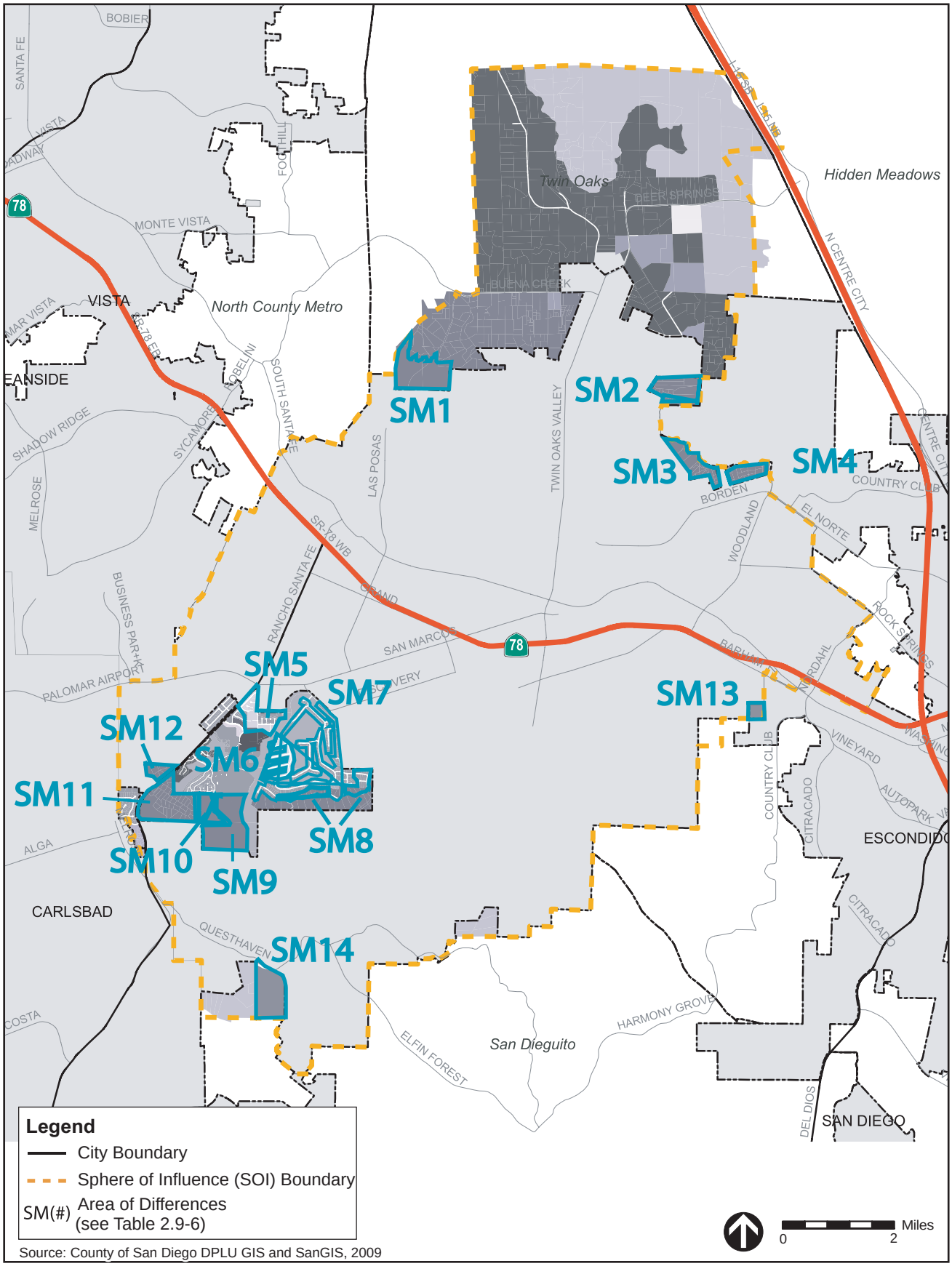
## FIGURE 2.9-2



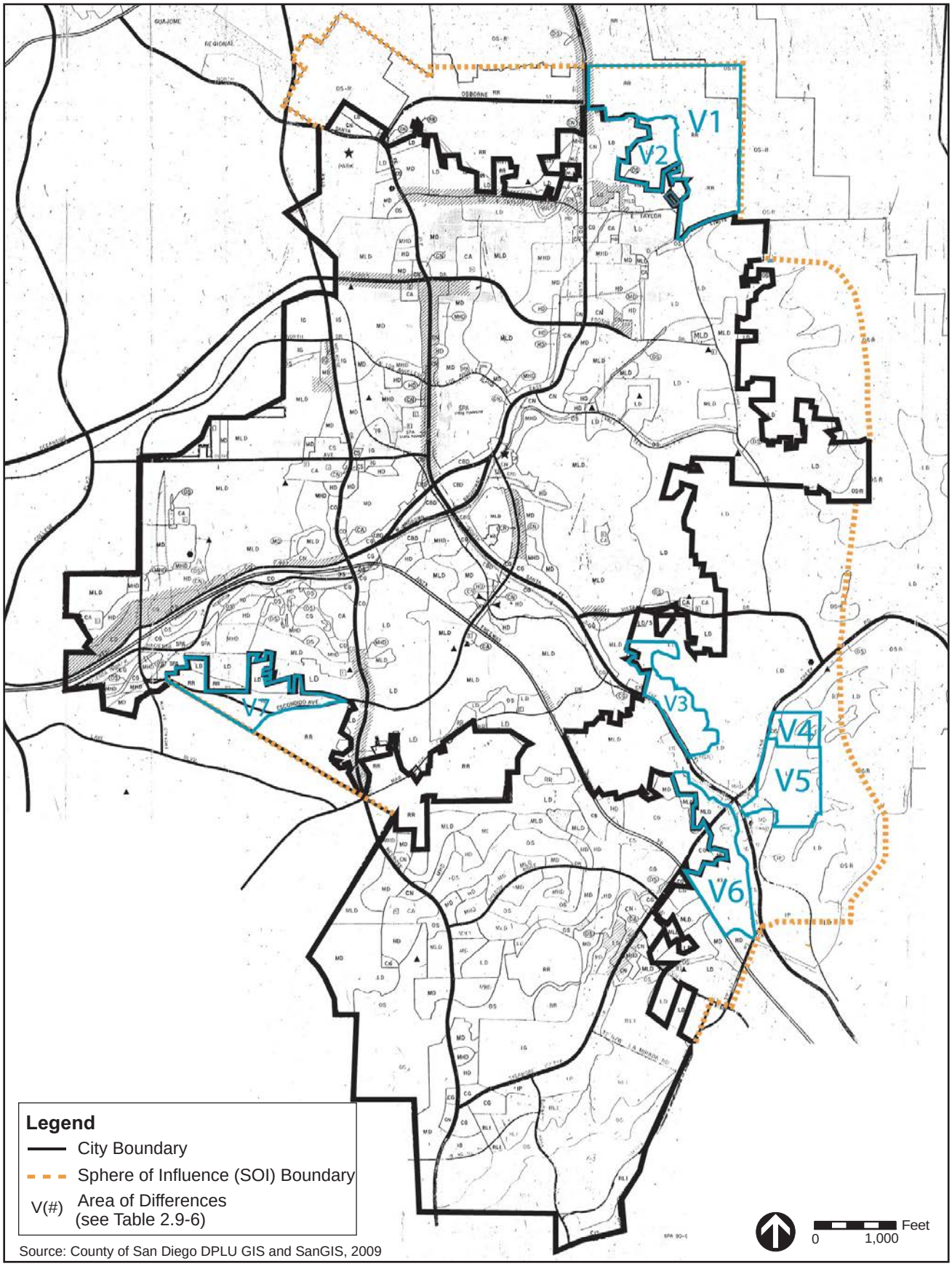

**CITY OF EL CAJON SPHERE OF INFLUENCE** **FIGURE 2.9-3**




**CITY OF ESCONDIDO SPHERE OF INFLUENCE** **FIGURE 2.9-4**




**CITY OF SAN MARCOS SPHERE OF INFLUENCE** **FIGURE 2.9-5**




Source: County of San Diego DPLU GIS and SanGIS, 2009

**CITY OF VISTA SPHERE OF INFLUENCE** **FIGURE 2.9-6**

# 2.10 Mineral Resources

This section of the EIR evaluates the potential for impacts to mineral resources associated with implementation of the General Plan Update. It identifies known and potential mineral resources within the County, and analyzes the potential for the General Plan Update to result in the loss of availability of a known mineral resource or the loss of availability of a locally important mineral resource recovery site. The majority of information in this section is from the County of San Diego General Plan, Conservation and Open Space Element Background Report (DPLU 2007b) and the County of San Diego Guidelines for Determining Significance, Mineral Resources (DPLU 2008c).

A summary of the mineral resources impacts identified in Section 2.10.3 is provided below.

**Mineral Resources Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Mineral Resource Availability | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 2 | Mineral Resource Recovery Sites | Potentially Significant | Potentially Significant | Significant and Unavoidable |

## 2.10.1 Existing Conditions

Mineral resources located in San Diego County serve various public, commercial, scientific, and recreational purposes. Mineral resources are used in both private developments and public projects. Local extraction sites are valuable assets used to help facilitate the continual growth of the region. Locally important mineral resources in the County include construction materials, rocks that can be used for dimension stones, and also minerals of historical significance including precious metals and gemstones.

### *2.10.1.1 Geologic Environments*

Geologic processes in San Diego County such as intrusive emplacement of magma, volcanism, erosion, sedimentation, and hydrothermal processes determine the type, location, and concentration of all mineral resources. There is a direct association between specific types of mineral deposits and the host rock that contains those deposits. For example, in San Diego County, gold and tungsten occur mainly in metamorphic rocks, while concrete quality sand is found in the floodplains of the major river valleys. Gem and specimen minerals are found in the County's pegmatites. Pegmatites are rocks from water-rich magma that cooled slowly as it moved through fractures in the host rock. Large crystals formed in these slow-cooling magmas. The pegmatites are important sources of gem material and crystal specimens.

A geological environment is made up of the physical constituents of an area, including rocks, sediments, soils, fluids, and landforms, as well as the processes that shaped the environment over time (Howari 2003). The following general geologic environments are the most important to mineral resources that are found within the County, including the Mineral Resource Zone

(MRZ) areas discussed below. Figure 2.10-1 shows the distribution of the geologic environments in the County.

Mesozoic age [65 to 248 million years ago (mya)] metamorphic rocks include marble, schist, and gneiss outcrops that are found in the western foothills of the Peninsular Range and in the desert east of the mountains. The local supply of marble and gneiss are used mainly for dimension stone in buildings.

Cretaceous Age (65 to 135 mya) crystalline rocks, including granites, diorites, and gabbros and Upper Jurassic (135 to 160 mya) metavolcanics underlie most of the mountainous terrain in the central portion of the County. These rocks are associated with the Peninsular Ranges batholith that underlies southern California and Baja California. A batholith is a large body of igneous rock formed beneath the Earth's surface by the intrusion and solidification of magma (Britannica 2008). This rock type is primarily quarried for coarse aggregates that are needed for concrete, riprap (broken rock) for breakwaters and bank protection, and decorative and dimension stone, as described in greater detail below.

Tertiary Age (1.8 to 65 mya) sedimentary rocks include sandstone, conglomerate, and mudstone and are found in the western portion of the County. Deposits of recent alluvium, including sand, gravel, silt, and clay are found in river and stream valleys, around lagoons, in intermountain valleys, and in the desert basins. Both tertiary age rocks and recent alluvium can be mined and processed for construction materials, as described further below. Sand and gravel are plentiful in the desert, but costs to transport the material make mining infeasible to serve the needs of the metropolitan areas of western San Diego County.

### *2.10.1.2 Mining Economics*

Although geologic considerations are the dominant factors determining the ultimate availability of most minerals, economic factors usually determine when and if a mineral deposit will be mined. To be financially feasible (that is, profitable in a business sense), sale proceeds must exceed the costs of mining, processing, and distribution.

In both dollar value and tonnage, the extraction of sand and gravel materials is the most productive type of mining in San Diego County. The deposits are vital to community development. To be of use, deposits must be close enough to urban centers for extraction and transport to be economical. For this reason, past studies on sand and gravel have focused on the western portion of the County where most of the development has been. The conservation of potential mineral resource sites in the unincorporated County ensures future supplies will be available when they are needed and when improved technology makes their mining economically feasible.

Rapid changes in the market value, as well as advances in mining technology have major impacts on the economic feasibility of mining a particular mineral deposit. Economics are also of great consideration in determining the unit value of the resource as it usually determines when and if a deposit will be mined. Bulk aggregate products of low unit value such as sand or gravel must be mined near the point of use to avoid high transportation costs, whereas gem-products of high unit value such as tourmaline can be shipped anywhere at a low distribution cost.

Some basic considerations for determination of the economic feasibility for potential mining locations in San Diego County include:

- **Supply and Demand.** As described further in Section 2.10.1.4, as of January 2006, the number and output of permitted quarries in the County has not kept pace with the increasing demand for sand and aggregate. The shortage of local PCC sand has partially contributed to the San Diego region having the highest price for aggregate of any regional market in California. The total amount of permitted aggregate resources in western San Diego County represents only 17 percent of the 50-year estimated demand for the County. Prices will continue to increase due to the imbalance between supply and demand, and any new permitted aggregate mines in the local market will likely benefit economically from this situation. Supply of gemstones and other rare minerals is low and as a result, demand and cost for these types of minerals will continue to remain high.
- **On-site Mining and Processing Costs.** On-site mining and processing of sand and gravel aggregate derived from alluvial deposits is less expensive than crushing rock. Crushed rock requires higher mining and processing costs due to ripping, drilling, blasting, and crushing of the rock. Mining of dimension stone is also expensive. Mining for gemstones is labor intensive and the resulting volume of minerals is small. It is also costly to extract gemstones and other rare minerals.
- **Transportation Costs.** Transportation plays an important role in the cost of mineral resources to the consumer, and is the principal constraint in defining the market area for an aggregate mining operation. Due to the expensive mining and processing costs of crushed rock, proximity to urban centers is important to reduce transportation costs. According to the local mining community, this currently restricts crushed rock operations to urbanized areas within the western portion of San Diego County. However, it is economically feasible for alluvial sand and gravel mines to be potentially permitted in the eastern portion of the County provided there is efficient freeway or railway access to get the materials to market in the urbanized western portion of the County.

### *2.10.1.3 Existing Resources*

In mining and conservation, economists, engineers, and scientists use the term “mineral resources” to mean a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. For purposes of this document, there are three general categories of mineral resources important to San Diego County:

- **Construction Materials.** These include sand, gravel, and crushed rock. This is economically the most important category of mineral resources to the region.
- **Industrial and Chemical Mineral Materials.** These include limestone, dolomite, and marble (except where used as construction aggregate), specialty sands, clays, phosphate, borates and gypsum, feldspar, talc, building stone and dimension stone.
- **Metallic and Rare Minerals.** These include precious metals (silver, platinum), iron and other ferro-alloy metals, copper, lead, zinc, gemstones and semi-precious materials, and optical–grade calcite.

These three general categories of mineral resources are discussed further below. The locations of the existing mineral resources in the County are shown on Figure 2.10-2.

### *2.10.1.4 Construction Materials*

The County's supply of mineral resources is exhaustible and the mineral resource deposits are essentially non-renewable. There is, however, a vast amount of mineral deposits. Mining has been authorized in only a fraction of the area that technically could be mined. In the case of alluvial deposits, the rate of consumption dramatically outweighs natural rates of replenishment. Erosion of the foothills and mountains, transport by gravity and water, and deposition of this new material into the County's alluvial river valleys and basins replenishes sands and gravels. However, upstream dams restrict the flow of water in all but one of the rivers in the County, thereby reducing the replenishment of these materials. Conservation of the County's remaining mineral resources, especially construction aggregates, is important to ensure that resources are available for future generations.

**Construction Materials**

Sand, gravel, and crushed rock provide essential construction aggregate material for modern society and comprise the most important mineral resource category in San Diego County. Aggregate is used in one form or another for the construction of roads, parking lots, buildings, homes, schools, hospitals, shopping centers and other essential infrastructure. In the natural state, sand and gravel are usually loose, easily handled, and readily compacted, while retaining good internal drainage characteristics. These characteristics make them a preferred material for fills and a base for pavements and other structures. When combined with a cement binder, these materials become the principal ingredient in concrete, whether used in its fresh (plastic) state and placed in forms, or pre-cast as pipe, block and other structural components. When combined with asphalt, sand and gravel become the aggregate forming the major element of asphaltic concrete, which is widely used as a paving material. The highest grade aggregate is used to provide the bulk and strength to Portland Concrete Cement (PCC) and Asphalt Cement (AC).

**PCC and AC Aggregate**

Rigid specifications for PCC and AC have been established by several agencies including the U.S. Bureau of Reclamation, the U.S. Army Corps of Engineers, and the California Department of Transportation to ensure the construction of strong, durable structures capable of withstanding the physical and chemical effects of weathering and use. As an example, specifications for PCC prohibit or limit the use of rock materials which contain gypsum, pyrite, zeolite, opal, chalcedony, chert, siliceous shale, volcanic glass, and some high-silica volcanic rocks. Each can cause physical and/or chemical effects which make the rock unsuitable for use as PCC. These restrictive specifications make PCC or AC aggregate the scarcest and most valuable form of aggregate. Within the County, crushed rock is the primary source of locally mined PCC aggregate. PCC sand is very scarce in the County due in part to environmental and regulatory constraints of permitting and extracting sand and gravel from in-stream and floodplain areas.

### Alluvial Sand and Gravel

Within the unincorporated portion of the County, alluvial sand and gravel deposits are generally found in river and stream valleys, alluvial fans, and in intermountain alluvial valleys. Alluvial materials are generally composed of a range of grain sizes that make them readily compactable while retaining good internal drainage. These deposits are typically preferred to crush stone for PCC aggregate because the rounded particles of alluvial sand and gravel result in a wet mix that is easier to work with than a mix made of angular fragments (CGS 2006). In addition, alluvial gravel deposits are usually loose, easily handled, and require minimal ripping, drilling, blasting, and crushing as compared to rock quarries. The locations of sand and gravel deposits in San Diego County are shown in Figure 2.10-2.

### Crushed Rock

Within the unincorporated portion of the County, potential deposits for crushed rock are extensive (hundreds of square miles) and include Cretaceous granitic rocks of the Peninsular Ranges batholith that underlie approximately 70 percent of the unincorporated portion of the County, along with Upper Jurassic and Lower Cretaceous Santiago Peak metavolcanics, and Tertiary marine and non-marine sedimentary formations. To produce crushed rock, significant mining and processing activities are required, including ripping, drilling, blasting, and crushing of the rock. These activities make crushed rock materials more costly to produce than naturally occurring alluvial sand and gravel deposits. However, PCC can be made with crushed rock aggregate that is generally satisfactory and can supplement the local supply of alluvial sand and gravel.

### Construction Aggregate Shortage

Ensuring that industrial mineral resources production can keep pace with rapid population expansion has been a planning issue in San Diego County for many years. The County's supply of aggregate materials is large and could meet County demands for mineral resources over the next several generations. However, the western portion of the County has undergone rapid development that has encroached upon existing and potential future mining sites. As the population has grown, development has spread eastward and up the river valleys where mineral resources, especially aggregate and sand, were mined. The encroachment of urbanization caused mines to close or move to more remote locations, which then resulted in more encroachment as the population and development continued to grow around the mines. In this way, much of the aggregate mineral resources in the County became unavailable to the construction industry. The mineral resources available for construction in the County have dwindled; however, continued development requires more resources.

As a result, the locally permitted construction aggregate supply has not kept up with demand, resulting in San Diego now having the highest prices for aggregate of any region in the State. Due primarily to the short supply of aggregate materials, the price of PCC-grade aggregate ranges from $20 to $22 per ton (CGS 2006). To meet demand, aggregate is now being imported into the County from locations throughout southern California and is also being brought in by barge from Mexico. Reliance upon imported aggregate has become necessary to keep up with demand, even though transportation increases the cost of mineral resources for all users.

Conservation of the remaining areas from which mineral resources can be extracted is necessary to avoid shortfalls in construction aggregate supply. The use of construction materials recycled from demolished buildings, roadways or other facilities can lengthen the time that existing permitted mineral resources extraction facilities will last, and reduce the urgency for permitting new mining facilities.

### *Current Planning Issues*

To keep the price of mineral resources as low as possible, and thus keep the cost of housing and supporting infrastructure as low as possible, mines need to be close to the area where development is expected to occur. Construction mineral resources are heavy, and their cost increases with travel distance. Balancing the need for construction materials with urbanization, competing and incompatible land uses, public perception of mines, and permitting requirements is a planning challenge.

### *Urbanization and Permanent Resource Loss*

Despite society's dependence on construction materials, urban expansion often works to the detriment of the potential future extraction and use of those essential raw materials. Extraction of mineral resources for construction is often precluded by another existing land use. For example, aggregate resources that exist under a housing development or shopping center cannot be extracted. Also, if a housing development was allowed to be built adjacent to an area with suitable aggregate for extraction, land use compatibility issues arise that also could preclude the extraction of the aggregate. Cumulatively, vast areas of potentially mineable mineral resources within the western region of the County have been permanently lost due to urbanization.

### *Noise Setbacks and Other Public Concerns*

Noise from mining activities is typically the most recognizable environmental impact that would affect nearby sensitive land uses (such as residential developments, industrial developments, commercial developments, and major public facilities). In order to meet the standards outlined in the Noise Ordinance (County Code Section 36.401 et. seq), an adequate setback between noise-generating activities associated with extractive uses and sensitive land uses is necessary. Although setback distances would vary from project to project, a general noise setback area of approximately 1,300 feet is an adequate distance for most extractive operations to avoid exceedance of allowable noise levels (in compliance with the Noise Ordinance). For example, 1,300 feet would usually attenuate typical heavy equipment noise levels of 75 to 90 dBA to the Noise Ordinance standard of 50 dBA for daytime residential land use. It is important to note that the setback is relative to the property line of a noise sensitive land use. The range of the setback area would vary, depending on the noise levels produced by the quarry, proposed blasting, production methods, extent of crushing and screening activities, topographic and site conditions, etc. Setback distance will also depend on the applicable sound level limits at the property line as determined by the Noise Ordinance. The size of the setback would also vary depending on the presence of natural or man-made noise barriers between the noise source and the property line. For example, significant topography could attenuate noise associated with extractive activities at the property line, allowing for a reduced setback to achieve Noise Ordinance compliance. Residents are also concerned about potential dust, blasting vibrations, truck traffic, unsightly scars on the land, and loss of habitat caused by aggregate mining.

### *Open Space for Sensitive Environmental Resources*

Permanent open space easements placed on parcels for the protection of sensitive environmental resources permanently preclude future extraction of mineral resources. Such open spaces often exist in prime aggregate extraction areas such as river valleys and constitute an impediment to finding suitable sites for new mines.

## Aggregate Production in San Diego County

### *Available Resources*

In 1982, the CDMG, now known as the California Geological Survey (CGS), classified lands for PCC-grade aggregate and in 1985 these lands were designated by the State Mining and Geology Board (SMGB) as having aggregate resources of regional significance. The most recent relevant publication is the Aggregate Availability in California Report, published in 2006 as part of Map Sheet 52 by the CGS. According this report, in 2001, there were 275 million tons of permitted aggregate resources in San Diego County. By 2006, there were only 198 million tons of permitted aggregate resources. Between 2001 and 2006, the amount of permitted aggregate resources decreased approximately 28 percent. This is due to a variety of factors including new mining regulations, closure of previously operational mines, a decrease in new mining permits, and increased continued consumption of resources. An additional 5,740 million tons of unpermitted resources are estimated to be available in the western portion of the County. This is the estimated amount of aggregate that is available for future extraction. However, urbanization and conservation measures restrict access to these aggregate resources, making it difficult to permit new mining operations. An increasing amount of aggregate continues to be lost due to urbanization. In addition to urbanization, adoption of competing resource conservation measures, such as the Multiple Species Conservation Program and the Multiple Habitat Conservation Plan, could substantially restrict access to aggregate resources.

### *Permitted Mining Operations*

As of 2009, 18 mines were permitted and active within the unincorporated County, as shown in Table 2.10-2. The exposed areas in the 18 active mines totaled approximately 900 acres. Some of these mines had reached the reclamation phase of the extraction operation. Reclamation is the process of closing a mine and returning it to pre-mining conditions or a new use such as cropland. The process must conform to the requirements of the Surface Mining and Reclamation Act (SMARA), described below in Section 2.10.2, Regulatory Framework. According to the California Department of Conservation, reclamation includes maintaining water and air quality, minimizing flooding, erosion and damage to wildlife and aquatic habitats caused by surface mining. The final step in this process is often topsoil replacement and revegetation with suitable plant species (OMR 2008).

The County of San Diego Department of Public Works (DPW) operates three active mines in the unincorporated County, including Buckman Springs Borrow Pit in the Mountain Empire Subregion, Warner Borrow Pit in the North Mountain Subregion, and Olive Street Borrow Pit in Ramona CPA. These mines produce aggregate materials for use by DPW. The County of San Diego's Department of Planning and Land Use (DPLU) reviews existing mines for compliance with the approved plans of operation on an annual basis.

Table 2.10-1 indicates the types of minerals being commercially mined within the entire County. Table 2.10-2 lists extraction sites within the unincorporated areas of San Diego County.

**Projected Aggregate Demand**

The 2006 CGS report provides an estimate of project aggregate consumption in the western San Diego region through the year 2055. Estimates were generated using industry projection records, population data, aggregate consumption indicators, and historical per capita consumption rates to develop project consumption rates. In order to satisfy the future demand of aggregate through the year 2055, it is estimated that 1,164 million tons of aggregate will be needed. Of this total, approximately 70 percent, or 815 million tons, must be PCC-grade aggregate. As described above, 198 million tons of permitted aggregate resources are available in the County, which would provide only 17 percent of projected demand. Based on the aggregate reserve estimates of 1995, PCC-grade aggregate reserves would be exhausted by 2016 (DMG 1996). However, the San Diego region will continue to grow well beyond this timeframe. Therefore, San Diego County will have to rely even more on imported aggregate resources as the County builds out.

## *2.10.1.5 Other Mineral Resources*

**Industrial and Chemical Mineral Materials**

Industrial and chemical mineral materials found within the County include, but are not limited to, ash, boron, clay, bentonite, kaolinite, dolomite, feldspar, graphite, gypsum, mica, perlite, phosphorous, pumice, quartz, specialty sands, sodium, gypsum, calcite, silica, limestone, and dimension stone. Dimension stone consists of large, round, relatively flawless blocks or slabs of stone used for items such as buildings, monuments, paving, and countertops. In San Diego County, dimension stone of granite, gabbro, marble, and limestone are quarried.

Gypsum is a major rock forming mineral that produces massive beds, usually from precipitation out of highly saline waters. Gypsum deposits are located in the eastern part of San Diego County. Moreover, gypsum is used in concrete for highways, bridges, buildings, and many other structures. Gypsum also is used extensively as a soil conditioner to improve the workability and the water penetration of soils and to overcome the corrosive effect of alkalinity. It is also a component of plaster of paris used in surgical and orthopedic casts (Gypsum 2008).

Clay deposits, including bentonite and montmorillonite, are also found in San Diego County. Derived from weathered volcanic ash, bentonite is a material composed of montmorillonite clay and other minerals, and is commonly used in drilling mud. Bentonite swells considerably when exposed to water, making it ideal for protecting formations from invasion by drilling fluids (Schlumberger 2008). It is also used in cosmetics (facial masks) and internally as a detoxifying agent (CureZone 2008).

Calcite mines can be found in the badlands of the Anza-Borrego Desert State Park. In the building industry, calcite is used as a component in cement, a filler in paint, and as a structural and ornamental stone. Crushed calcite (lime) is used to mark the lines on a playing field. Clear crystals were once used to make polarizing prisms, and they are still used today in optical instruments. During World War II, at the Calcite Mine site above Palm Canyon, optical-grade calcite crystals were extracted for use in gun sights and targeting instrumentation. This was the only site in the U.S. that produced optical-grade calcite crystals (Schad 1998). Mining was halted when a synthetic material replacing calcite was invented.

Cryptocrystalline silica, composed of extremely fine silica (quartz) crystals, occurs throughout the Peninsular Ranges and foothills from Orange County southward to the Santa Ana range in Baja California. Trace elements and impurities give cryptocrystalline silica, chemically identical to quartz, distinctive colors. The names given to this mineral are generally based on the differences in translucence, color, texture, or presumed geological origin, and include agate, chalcedony, chert, flint, jasper, and silicified (petrified) wood.

Limestones are sedimentary rocks made from calcite that came from shallow reef environments. It was formed by the evaporation of seas and lakes and from sea animal shells. Fossilized limestone is used for building materials, lime production and aggregate. This rock is used in concrete and is an excellent building stone for humid regions. Limestone is found in limited quantities in San Diego County.

Most of the unincorporated portion of the County, especially east of the urbanized areas, is underlain by granitic rocks. Granite is one of the most versatile stone types because it is capable of taking a wide variety of finishes, which allows designers to custom-tailor the stone to specific aesthetic or performance requirements. Composed mostly of quartz and feldspars, granite is scratch resistant and durable. Granite is a choice material for high precision applications such as surface plates, and machine mounts and press rolls.

**Metallic and Rare Minerals**

No gold and only a few gemstone mines are currently active in the County, but both gold and gemstones played a very important historic role in the settlement of several towns in the backcountry of eastern San Diego County. Historical mining sites are important for their scientific, educational, and recreational uses. In addition, some historical mines still contain resources of commercial value. Gold potentially exists in the County, and could be locatable or extractible with future technology. Gemstones are not a necessary commodity for an expanding population, but they provide other benefits to the region, such as worldwide recognition. Mindat.org, a mineralogy database, lists 185 gem and specimen minerals from 655 locations San Diego County. San Diego County's gems are found in sheetlike pegmatite bodies that are typical of the southern California-northern Baja California region (Mindat 2008). Gem producing pegmatites in San Diego County are found in the Pala, Mesa Grande, Ramona, Coahuila, Rincon, McCain Valley and Jacumba Districts, which are the major pegmatite districts of California. Approximately 13 gem mines are currently active at four locations in the County including Pala, Mesa Grande, Warner Springs and Ramona, as shown in Table 2.10-3.

## *2.10.1.6 Mineral Resource Zones*

**Classification and Designation**

In 1975, SMARA required the classification of land into MRZs, according to the land's known or inferred mineral resource potential. The process was based solely on geology, without regard to existing land use or land ownership. The primary goal of classification is to ensure that the mineral potential of land is recognized by local government decision-makers and considered before they make land-use decisions that could preclude mining. The intent was that when resources were identified and the scarcity was verified, those lands would be protected for future extraction. However, many local governments must choose between mining and its most common competing land use, residential development.

The SMGB prioritizes areas to be classified and/or designated. The highest priority areas are those within the State that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Areas where such a possibility is perceived to be most severe, such as in western San Diego County, are given highest priority. Approximately the western one-third of the County was classified into distinct MRZs according to the California Mineral Land Classification System in 1982. The lands classified in San Diego County are known as the Western San Diego County Production-Consumption (P-C) Zone and extend from the southern Camp Pendleton boundary, south to the International Border, and from the ocean to an irregular boundary approximately one-third of the way across the County. The P-C Zone takes in all of the incorporated areas of the County, and the unincorporated communities of Jamul, Alpine, Ramona, Valley Center, and Rainbow. Along the San Luis Rey River the boundary extends to Pauma Valley. The remaining lands to the east are referred to as uncategorized zones. The MRZs are discussed below and shown graphically on Figure 2.10-3.

**Mineral Resource Zone 1 (MRZ-1)**

MRZ-1 areas are defined as areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone is applied by the CGS to lands where well developed lines of reasoning, based on economic-geologic principles and adequate data, indicate that the likelihood for occurrence of significant mineral deposits is nil or slight.

Six areas in the unincorporated County are designated as MRZ-1. Five are in the North Metro Community Planning Area (CPA), just north of the City of Escondido, and one is at the intersection of State Route (SR) 94 and SR-54, in the Rancho San Diego area of the Valle de Oro CPA.

**Mineral Resource Zone 2 (MRZ-2)**

MRZ-2 areas are defined as areas underlain by mineral deposits where geologic information shows that significant measured or indicated resources are present. A typical MRZ-2 area would include an operating mine, or an area where extensive sampling has indicated the presence of a significant mineral deposit. The 1982 classification identified 22 sectors in the unincorporated County as having aggregate deposits, of which 19 are still economically extractable. Sectors are defined as MRZ-2 areas that meet the SMGB guidelines as eligible to be designated as having regional or statewide significance. Additional deposits have been classified or reclassified as MRZ-2 for PCC-grade aggregate in the unincorporated County since 1982. Table 2.10-4 lists the aggregate resource sectors in the County. Table 2.10-5 lists lands classified since 1982.

**Mineral Resource Zone 3 (MRZ-3)**

MRZ-3 areas contain known mineral deposits that could qualify as mineral resources. Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category. Most of the remaining land in the Western San Diego P-C Region is classified as MRZ-3, with exception of a few small areas that are MRZ-4.

**Mineral Resource Zone 4 (MRZ-4)**

MRZ-4 areas are those where geologic information is not conclusive on the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations. The MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources but rather that there is a lack of knowledge regarding mineral occurrence. Further exploration could result in the reclassification of MRZ-4 lands.

**Uncategorized Zones**

Uncategorized zones are all the lands in the County outside the Western San Diego County P-C Region.

### *2.10.1.7 Oil and Gas Production*

Oil and gas are formed from the decomposed remains of ancient life, especially plankton that accumulated on the bottom of the seabed. Pressure, heat, and time turn these remains into fossil fuels. Over time, sediments build up over the remains and trap them in rock, then as pressure and temperature increase, the organic material breaks down into a simpler hydrocarbon (chains of carbon and hydrogen atoms) form. Complex rock structures trap gas and oil, the most common of which is called an anticline, an arched layer of rock that is impermeable by oil and gas. Underneath this barrier, a reservoir builds up. Fossil fuels are extracted from these reservoirs (Chughtai 2008).

San Diego County does not have any onshore or offshore fossil fuel (e.g., oil or gas) production facilities.

### *2.10.1.8 Asbestos*

Naturally occurring asbestos (NOA) is the name for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. Asbestos deposits are located in many parts of California and are commonly (but not exclusively) found in areas with ultramafic and serpentine rocks and near fault zones (Cal EPA 2008). Asbestos is commonly found in the Coastal Ranges; however the General Location Guide for Ultramafic Rocks in California–Areas More Likely to Contain Naturally Occurring Asbestos, prepared for the Department of Conservation (DMG 2000), does not identify any areas of risk in San Diego County.

### *2.10.1.9 Geothermal Resources*

Geothermal steam power occurs when water deep below the earth's surface is heated by exposure to hot porous rock, and the resulting dry steam is tapped at depth by geothermal wells that pipe the steam directly into steam turbine generators to create electricity. Wells, some greater than two miles deep, have been drilled to tap this natural steam.

Geothermal resources in San Diego County consist of hot water springs found at or below the earth's surface. Hot springs in the County include De Luz Hot Springs, Warner Hot Springs, Vallecitos Spring, Agua Caliente Springs, and Jacumba Hot Springs (Hodgson 2002). Warner

Hot Springs and Agua Caliente Springs have historically been used as baths/pools and for space heating.

## 2.10.2 Regulatory Framework

### *2.10.2.1 Federal*

There are no federal regulations, authorities, or administering agencies pertaining to mineral resources that regulate the proposed project.

### *2.10.2.2 State*

**Surface Mining and Reclamation Act of 1975**

Urban preemption of prime mineral deposits and conflicts between mining and other uses throughout California, as well as the need to adequately reclaim mining sites, led to the passage of SMARA. The Act establishes policies for conservation and development of mineral lands, and contains specific provisions for the classification of mineral lands by the State Geologist.

SMARA requires all cities and counties to incorporate into their general plans the mapped designations approved by DMG. These designations are to include lands categorized as MRZs. MRZ classifications are set forth in the Guidelines for Classification and Designation of Mineral Lands (SMGB 2008) developed by SMGB and is used to communicate information concerning the existence of mineral resources. The State has not mapped roughly two-thirds of San Diego County because SMARA was only designed to classify lands designated as urban areas (i.e., P-C Region) when it was passed in 1975. In 1980, SMARA was amended to provide for the classification of non-urban areas as well, however, this updated mapping has not been completed as of June 2009.

**Integrated Waste Management Act**

AB 939, the Integrated Waste Management Act, mandates that each jurisdiction reduce the amount of waste entering landfills each year. This is beneficial in lengthening the lifespan of available mineral resources within the County by recycling materials from demolished buildings, roadways or other facilities.

### *2.10.2.3 Local*

**San Diego County Zoning Ordinance, Sections 2820-2835, S82 Extractive Use Regulations**

San Diego County Zoning Ordinance, Section 2820 et seq., are known as the S82 Extractive Use Regulations and are intended to identify and create areas within the County where mining, quarrying, or oil extractive uses are permitted. Typically, the S82 Extractive Use Regulations would be applied to areas of mineral deposits, to signify the presence of such deposit and notify adjacent or affected properties of the intention to allow extraction of minerals within the zone. They would be used to preserve areas with valuable mineral deposits until extraction can take place.

**San Diego County Zoning Ordinance, Sections 6550-6556, Extractive Use Regulations**

San Diego County Zoning Ordinance, Section 6550 et seq., are known as the Extractive Use Regulations and provide the means for public review and regulation of mineral extraction and associated on-site processing operations.

**County of San Diego Code of Regulatory Ordinances Section 87.701-87.714, Surface Mining**

In 2003, the Board of Supervisors added Sections 87.701 through 87.714, entitled Surface Mining, to County of San Diego Code of Regulatory Ordinances to regulate all surface mining operations in the unincorporated area of the County of San Diego as authorized by the San Diego County Zoning Ordinance and SMARA to ensure that:

a. The continued mining of minerals will be permitted in a manner which will protect the public health and safety and will provide for the protection and subsequent beneficial use of mined and reclaimed land; and

b. The possible adverse effects of surface mining operations on the environment, including air pollution, impedance of groundwater movement, water quality degradation, damage to aquatic or wildlife habitat, flooding, erosion and sedimentation, will be prevented or minimized; and

c. The production and conservation of minerals will be encouraged while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

This Ordinance is intended to implement the minimum requirements of SMARA as well as to specify local requirements (County 2008b). County Code Sections 87.701 through 87.714 require that no person shall conduct surface mining unless a MUP is obtained; a Reclamation Plan is approved as provided by the Zoning Ordinance and SMARA; and financial assurances for reclamation have been approved by the County. Grading performed pursuant to such MUP or Reclamation Plan shall be in accordance with a plot plan and conditions approved therewith. Where surface mining has been conducted in violation of this or other ordinances, a Reclamation Plan shall be obtained for the restoration of the site.

## 2.10.3 Analysis of Project Impacts and Determination of Significance

### *2.10.3.1 Issue 1: Mineral Resource Availability*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and County Guidelines for Determining Significance, Mineral Resources, the proposed County General Plan Update would have a significant impact if it would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State, such as proposing incompatible development:

- On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2;
- On land classified as MRZ-3;
- On land underlain by Quaternary alluvium; or
- On or within the vicinity of areas containing industrial material and gemstone resources.

**Impact Analysis**

The primary adverse effect to mineral resources in San Diego County is the loss of their availability by the placement of incompatible land uses, which either directly or indirectly make the resource inaccessible for future extraction. Mining operations require an adequate setback from these land uses due to the variety of environmental issues associated with mining, which include, but are not limited to, noise, traffic, air quality, and visual resources impacts.

Compatible land uses are defined in Article 6, Section 3675, of the State Mining and Geology Board Reclamation Regulations (SMGB 2007) as land uses that require a minimum public or private investment in structures, land improvements and would allow mining because of the relative economic value of the land and its improvements. Examples of such uses include, but are not limited to, very low density residential, geographically extensive but low impact industrial, recreational, agricultural, timber harvesting, grazing, and open space land uses.

Incompatible land uses are also defined in Article 6, Section 3675, of the State Mining and Geology Board Reclamation Regulations as land uses that require public or private investment in structures, land improvements, and landscaping and that would prevent mining because of the greater economic value of the land and its improvements. Examples of such uses would include, but are not limited to, high density residential, low density residential with high unit value, public facilities, geographically limited but impact intensive industrial and commercial land uses.

Table 2.10-6 shows the total acreage of land uses in the County located in areas designated as having resources present (MRZ-2). As shown in this table, the most common proposed land use in these areas is semi-rural residential. As described above, residential land uses other than very low density are generally considered incompatible with mineral resources extraction. Table 2.10-7 presents the acres of land uses within MRZ-2 designations within each CPA. Most of the land within the Alpine CPA that contains resources is designated for National Forest and State Parks, where the County does not have jurisdiction; however, future mining in these areas is not foreseeable due to biological constraints. The Bonsall, Crest/Dehesa, Fallbrook, and Valle de Oro communities contain large areas within MRZ-2 areas that are designated for semi-rural residential uses. The Lakeside CPA and Pala/Pauma Valley Subregion include areas designated for village residential densities. Therefore, the proposed project would allow the development of incompatible land uses in areas of known mineral resources that would impede the availability of known resources.

Table 2.10-8 presents the acreage of land uses in the unincorporated County that would be located in areas designated MRZ-3. As shown in this table, the majority of MRZ-3 areas are designated for semi-rural or village residential uses. As described above, residential uses are generally considered incompatible with mineral resource extraction. Therefore, the proposed

project would allow the development of incompatible land uses in areas that potentially contain mineral resources that would impede the availability of these mineral resources.

Areas in the eastern portion of the County have not been mapped for mineral resources availability. However, as shown in Figure 2.10-1, several communities are underlain by Quaternary alluvium, which is known to contain mineral resources. Additionally, as shown in Figure 2.10-2 and Table 2.10-2, several active quarries currently exist in the eastern portion of the County. The communities that have not been mapped for mineral resource potential but contain areas underlain by Quaternary Alluvium are the Desert Subregion, Mountain Empire Subregion, North Mountain Subregion, and Pala/Pauma Valley Subregion. While these areas are proposed for lower intensity development than the western portion of the County, residential uses are proposed in these areas that would reduce the availability of mineral resources and result in a potentially significant impact.

As shown in Figure 2.10-2, the County also contains semiprecious, diamond, and quartz mines, as well as other industrial material and gemstone resources that are not included in the MRZ classifications, which are primarily for aggregate resources. These resources are located throughout the County. As shown in this figure, semiprecious, diamond, and quartz resources are known to occur in Pala/Pauma Valley Subregion, Bonsall CPA, Ramona CPA, Crest/Dehesa CPA, Desert Subregion, Mountain Empire Subregion, and North Mountain Subregion. Uses near these resources in Pala/Pauma Valley Subregion, Crest/Dehesa CPA, North Mountain Subregion, Desert Subregion, and Mountain Empire Subregion are primarily open space and low density rural land, which are considered compatible uses with resource extraction. However, in Bonsall CPA, the location of these resources is proposed for semi-rural residential use. Additionally, semi-rural residential and commercial uses are proposed near a portion of these resources in Ramona CPA. These are incompatible uses that would reduce the availability of mineral resources. Most of the unincorporated portion of the County, especially east of the urbanized areas, is underlain by granitic rock, which is an industrial material resource. Though these resources are generally located outside of the western area of the County where development would be concentrated, development in the backcountry consistent with the General Plan Update would result in incompatible uses. Additional industrial materials and gemstone resources are potentially available throughout the County that has not been mapped. Therefore, the proposed project has the potential to reduce the availability of non-aggregate mineral resources and would result in a potentially significant impact.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

At the State level, SMARA establishes policies for conservation and development of mineral-containing lands, and it requires all cities and counties to incorporate into their general plans the mapped MRZs.

At the local level, the County screens development projects for the potential loss of availability of mineral resources using MRZ classification data within the County's GIS mapping applications. Mineral resource potential is evaluated for project sites, and land use compatibility is reviewed for sites on or near important MRZs. Using the County's Guidelines for Determining Significance, Mineral Resources, and County decision makers can limit the encroachment of incompatible land uses in areas containing mineral resources.

Additionally, Sections 2820 through 2825 of the County of San Diego Zoning Ordinance preserve areas with valuable mineral deposits until the deposits can be extracted. These

sections are known as the Extractive Use Regulations and would be applied to areas of known mineral deposits, to signify the presence of such a deposit and notify adjacent or affected properties of the intention to allow extraction of minerals within the area. These regulations identify and create zones within the County where mining and quarrying uses are permitted. Special regulations governing the conduct of mineral extraction, associated operating characteristics, and care of the site at the conclusion of the extraction operation are also imposed. The following use types are permitted by the Extractive Use Regulations: essential public services, fire protection services, and agricultural uses. Additionally, Section 6550 of the San Diego County Zoning Ordinance provides the means for public review and regulation of mineral extraction and associated on-site processing operations. However, as described above, the General Plan Update designates land uses in areas that contain or potentially contain mineral resources which would not be compatible uses.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains several policies in the Conservation and Open Space Element to protect the availability of mineral resources in the County. The mineral resources goal and supporting policies are intended to assure an adequate supply of mineral resources to support the economic activity projected to occur under the General Plan Update, and to comply with the requirements of the SMARA with regard to the conservation of mineral resources, and the permitting and reclamation of mining sites. Goal COS-10 is to sustain the long-term production of mineral materials adequate to meet the local County annual demand, while maintaining permitted reserves, using operational techniques and site reclamation methods consistent with SMARA standards such that adverse effects on surrounding land uses, public health, and the environment are minimized.

Eight policies support Goal COS-10, six of which protect against the loss of mineral resource availability. Policy COS-10.1 encourages potential new resource areas to be protected from incompatible land uses and prohibits new development that would preclude the future development of mining facilities where mineral resources are found to be significant. Policy COS-10.2 discourages incompatible land uses on or adjacent to areas classified or designated MRZ-2. Incompatible development or uses would be designed to minimize the potential conflict with existing or potential future mining facilities. These goals are intended to avoid encroachment of urbanization on aggregate resource extraction. Policy COS-10.3 requires new development to maintain road access to existing mining facilities, areas classified MRZ-2 or MRZ-3 by the State Geologist, or areas identified in the County Zoning Ordinance for potential extractive use. This policy avoids loss of a resource due restricted access that would make extraction less economical. Policy COS-10.4 discourages the development of land uses that are not compatible with mining or recreational access to non-aggregate mineral deposits. This policy protects non-aggregate resources from encroachment. Policy COS-10.6 promotes the conservation of construction aggregate within the County to ensure a minimum of 50 years supply. Policy COS-10.8 would develop specific permit types and procedures for the authorization of new mining facilities that recognize the inherent physical effects of mining operations and the public necessity for available mineral resources adequate to meet local demand. This policy protects against the loss of availability by making the permitting process for mines more efficient and less time-consuming. Additionally, Policy COS-10.9 requires zoning overlays for MRZ-2 designated lands and a 1,500 foot wide buffer area adjacent to such lands.

**Summary**

The General Plan Update proposes land uses in areas designated MRZ-2, MRZ-3, or those areas underlain by Quaternary alluvium that would be incompatible with these resources and would result in the loss of availability of known or suspected mineral resources that would be of value to the region and the residents of the State. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with mineral resources, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with mineral resource availability and specific implementation programs are identified as mitigation.

## *2.10.3.2 Issue 2: Mineral Resource Recovery Sites*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Resource recovery sites are areas where mineral resources could be extracted for use. Locally important resource recovery sites or areas where important resource recovery sites could potentially be located, are designated by the CGS as MRZ-2 or MRZ-3, or as being underlain by Quaternary alluvium.

**Impact Analysis**

Important mineral resource recovery sites are not identified in the General Plan Update; however, areas designated as MRZ-2 by the CGS are areas where mines currently operate and other areas where resources are known or likely to be present. The existing General Plan includes an extractive land use designation and an impact-sensitive land use designation which were applied to areas with economically extractable mineral resources. However, the impact-sensitive land use designation was not only applied as a designation for mineral resources but was also used to designate biological resources and other environmentally sensitive resources. The proposed General Plan Update does not include the extractive or impact-sensitive land use designations; however, the previous designations are generally within areas that have been designated as containing or potentially containing mineral resources by the CGS. Under the General Plan Update, MRZ-2 and MRZ-3 classifications or, in unmapped areas, those areas underlain by Quaternary alluvium, are delineated as having the potential to contain important mineral resources in the unincorporated County.

As described above in Section 2.10.3.1, the General Plan Update proposes land uses that would be incompatible with mining and resource recovery operations in areas designated MRZ-2, MRZ-3, or areas underlain by Quaternary alluvium, that contain or potentially contain important aggregate resources. The General Plan Update also proposes potentially incompatible land uses in areas that are known or likely to contain other industrial materials or gemstone mineral resources. Future development under the proposed General Plan Update would have the potential to encroach on areas where mines are active or where future resource recovery sites would have otherwise been permitted. The development of incompatible land

uses would preclude the extraction of mineral resources, thus resulting in a potentially significant impact with regard to the loss of availability of mineral resource recovery sites.

**Federal, State, and Local Regulations and Existing Regulatory Ordinances**

As described above in Section 2.10.3.1, relevant regulations that help reduce mineral resource losses include SMARA and the County of San Diego Zoning Ordinance.

**Proposed General Plan Update Goals and Policies**

As described above in Section 2.10.3.1, Policies COS-10.1 through COS-10.8 that support Goal COS-10 are intended to protect against the loss of mineral resource availability in the County.

**Summary**

The General Plan Update proposes potentially incompatible land uses that would have the potential to encroach on areas where mines are active or where future resource recovery sites would have otherwise been permitted. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with mineral resource recovery sites, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with mineral resource recovery sites and specific implementation programs are identified as mitigation.

## 2.10.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for minerals includes the entire unincorporated County and immediately adjacent areas, depending on the location of mineral deposits or operations.

### *2.10.4.1 Issue 1: Mineral Resource Availability*

Construction and operation of cumulative projects identified in Section 1.14 of Chapter 1.0, Project Description, would have the potential to result in the loss of availability of known mineral resources. Urbanization and growth in the jurisdictions adjacent to the unincorporated County would have the potential to result in land uses that are incompatible with mining and resource recovery and would result in a cumulative loss of available resources. Similar to portions of the unincorporated County, the CGS has classified land in Riverside County, Orange County, and the incorporated cities in the County of San Diego into MRZs. MRZs have not been identified for Imperial County (DMG 2001). Adjacent jurisdictions have included protections in their general plans or other planning documents to protect these and other mineral resources. However, planned and projected growth in the region would result in a reasonably foreseeable loss of mineral resources due to the encroachment of incompatible uses that would limit future areas from being permitted for mining operations. Therefore, a significant cumulative impact to mineral resource availability would occur. As discussed in Section 2.10.3.1, the General Plan Update would result in a potentially significant direct impact to mineral resource availability because it proposes land uses in areas designated MRZ-2, MRZ-3, or those areas underlain by

Quaternary alluvium. Therefore, in combination with other cumulative projects, the proposed project would result in a potentially significant cumulative impact.

### *2.10.4.2 Issue 2: Mineral Resource Recovery Sites*

As described in Section 2.10.4.1, urbanization and growth in the jurisdictions adjacent to the unincorporated County would have the potential to result in land uses that are incompatible with mineral resource recovery. Projected growth in the region would result in a reasonably foreseeable loss of mineral resource recovery sites due to the encroachment of incompatible uses that would preclude the extraction of mineral resources. It is reasonably foreseeable that other cumulative projects in the region would also result in the loss of availability of known mineral resources. Therefore, a significant cumulative impact to mineral resource recovery sites would occur. As discussed in Section 2.10.3.2, the General Plan Update would result in a potentially significant direct impact to mineral resource recovery sites because would preclude the extraction of resources by proposing land uses in areas known or likely resource locations. Therefore, in combination with other cumulative projects, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact.

## 2.10.5 Significance of Impact Prior to Mitigation

The proposed project would result in potentially significant impacts associated with mineral resource availability and mineral resource recovery sites.

## 2.10.6 Mitigation

### *2.10.6.1 Issue 1: Mineral Resource Availability*

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impact associated with the loss of availability of mineral resources. However, even with mitigation measures in place, continued development and growth under the General Plan Update would occur in areas that are known or likely to contain mineral resources, such as MRZ-2, MRZ-3 and areas underlain by Quaternary alluvium. The loss of availability of mineral resources would be greater in the western portion of the County where both growth and mineral resources are concentrated. In addition, incompatible land uses in some areas of the backcountry would be increased and result in constraints that would make permitting new mines more difficult. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with mineral resources; however, not to below a significant level. Additional mitigation measures have been identified that would fully reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts associated with mineral resources to below a level of significance. However, the County has determined that

these measures would be infeasible as described below; therefore, these mitigation measures would not be implemented.

- Prohibit incompatible uses that would be located on or near significant mineral resource sites. This measure would result in restrictions on future development in areas identified for increased growth in the General Plan Update because significant or potentially significant mineral resources sites have been identified throughout the western portion of the unincorporated County, where the majority of development under the General Plan Update would take place. Thus, this measure would conflict with goal of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

- For projects that propose incompatible uses near significant mineral resource sites, require the applicants to mine the site prior to project development. This measure would result in undue hardship on the entitlement process as extraction activities often take decades to complete and may make the site unusable for the proposed land use. In some cases, incompatible land uses may already exist in the vicinity of the mineral resource site that would make extraction at the site infeasible.

- Use public funds to initiate new mineral extraction operations. This measure would require voter or BOS approval to appropriate funds toward mineral extraction operations, which cannot be guaranteed. Moreover, this would initiate extraction sites in many areas of the County, which would potentially result in numerous environmental impacts and conflict with the project objective to minimize public costs and infrastructure.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with the loss of availability of mineral resources as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with mineral resource availability, although not to below a significant level.

**Policy COS-10.1: Siting of Development.** Encourage the conservation (i.e., protection from incompatible land uses) of areas designated as having substantial potential for mineral extraction. Discourage development that would substantially preclude the future development of mining facilities in these areas. Design development or uses to minimize the potential conflict with existing or potential future mining facilities. For purposes of this policy, incompatible land uses are defined by SMARA Section 3675.

**Policy COS-10.2: Protection of State-Classified or Designated Lands.** Discourage development or the establishment of other incompatible land uses on or adjacent to areas classified or designated by the State of California as having important mineral resources (MRZ-2), as well as potential mineral lands identified by other government agencies. The potential for the extraction of substantial mineral resources from lands classified by the State of

California as areas that contain mineral resources (MRZ-3) shall be considered by the County in making land use decisions.

**Policy COS-10.3: Road Access.** Prohibit development from restricting road access to existing mining facilities, areas classified MRZ-2 or MRZ-3 by the State Geologist, or areas identified in the County Zoning Ordinance for potential extractive use in accordance with SMARA Section 2764.a.

**Policy COS-10.4: Compatible Land Uses.** Discourage the development of land uses that are not compatible with the retention of mining or recreational access to non-aggregate mineral deposits.

**Policy COS-10.6: Conservation of Construction Aggregate.** Encourage the continued operation of existing mining facilities and streamline the permitting of new mining facilities consistent with the goal to establish permitted aggregate resources that are sufficient to satisfy 50 years of County demand.

**Policy COS-10.8: New Mining Facilities.** Develop specific permit types and procedures for the authorization of new mining facilities that recognize the inherent physical effects of mining operations and the public necessity for available mineral resources adequate to meet local demand, in accordance with PRC Section 2762.

**Policy COS-10.9: Overlay Zones.** Provide zoning overlays for MRZ-2 designated lands and a 1,500 foot wide buffer area adjacent to such lands. Within these overlay zones, the potential effects of proposed land use actions on potential future extraction of mineral resources shall be considered by the decision-makers.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with mineral resource availability, although not to below a significant level.

**Min-1.1** Assess the impact of new development on mineral resources as required by the County Guidelines for Determining Significance for Mineral Resources. Update the CEQA Guidelines for Determining Significance (Mineral Resources) to include the requirement to evaluate whether access is being maintained to existing mining sites.

**Min-1.2** Revise and update the County ordinances to designate areas of known importance for mineral resources as follows:

- Update the Zoning Ordinance with the addition of a Mining Compatibility Designator or Overlay that identifies parcels with a high potential for mineral resources. The purpose is to take into account the potential mineral resources not to preclude the potential mining use. In addition, specify that notification of potential mining use is provided to all parcels within a 1,500 foot radius of parcels with a Mining Compatibility Designator/Overlay.
- Revise the Zoning Ordinance to facilitate recycling of salvaged concrete, asphalt, and rock at permitted mining facilities.

- Revise the Zoning Ordinance and Grading Ordinance to authorize surface mining operations with a Surface Mining Permit rather than a MUP. Incorporate findings of approval that reflect Mineral Compatibility Designator, SMARA Sections 2762 and 2763, and the inherent nature of surface mining operations. Parcels with a high potential for mineral resources could include those areas designated as MRZ-2 or other areas identified as containing mineral resources that are located where a sufficient buffer is available so that extraction activities are feasible.

**Min-1.3** Request that the State Geologist identify mineral resources in previously unmapped areas of East and North County.

### *2.10.6.2 Issue 2: Mineral Resource Recovery Sites*

The General Plan Update policies and mitigation measures identified in Section 2.10.6.1 would also reduce impacts associated with the reasonably foreseeable loss of mineral resource recovery sites, although not to below a level of significance, for the same reasons as are identified in that section. In addition, the infeasible mitigation measures identified in Section 2.10.6.1 would also reduce impacts to the loss of mineral resource recovery sites to below a level of significance; however, they have been found to be infeasible by the County and would not be implemented. Therefore, impacts would be significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with the reasonably foreseeable loss of mineral resource recovery sites as compared to the proposed project.

## 2.10.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after General Plan Update policies and mitigation measures are implemented.

### *2.10.7.1 Issue 1: Mineral Resource Availability*

Implementation of the proposed General Plan Update would have the potential to result in potentially significant impacts associated with the loss of availability of mineral resources. Implementation of the proposed General Plan Update policies and mitigation measures would reduce impacts, although not to below a level of significance. Impacts would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable and unavoidable contribution to a significant cumulative impact associated with the loss of mineral resource availability. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

### *2.10.7.2 Issue 2: Mineral Resource Recovery Sites*

Implementation of the proposed General Plan Update would have the potential to result in potentially significant impacts associated with the loss of locally important mineral resource recovery sites. Implementation of the proposed General Plan Update policies and mitigation measures would reduce impacts, but not to below a level of significance. Impacts would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable and unavoidable contribution to a significant cumulative impact associated with the loss of mineral resource recovery sites. Alternatives that would reduce this impact are discussed in Chapter 4.0, Project Alternatives.

## Table 2.10-1. Types of Minerals Mined in San Diego County

| Commodity | Number of Mines | Total Production (Short Tons) |
|---|---|---|
| Decomposed Granite | 9 | 217,913 |
| Fill Dirt | 4 | 875 |
| Rock | 8 | 4,968,010 |
| Sand and Gravel | 22 | 5,387,306 |
| Silica | 1 | 0 |
| Specialty Sand | 1 | 0 |
| Stone | 4 | 328,876 |
| **Total** | 49 | 10,902,980 |

Source: Le Hinds 2003

## Table 2.10-2. Extraction Sites Under the Jurisdiction of the County of San Diego

| Quarry Name (Mine Operator) | Type of Activity | Planning Area | Regional Category | Land Use Category | Location | Notes/Area Being Mined |
|---|---|---|---|---|---|---|
| Baxter Quarry (M.J. Baxter Drilling Company) | Mining (Blasting) | Lakeside | Rural | High Impact Industrial | SR-67, east side, north of Vigilante Road | Active. Approximately 31 acres. |
| Buckman Springs Borrow Pit (County of San Diego, DPW) | Pit | Mountain Empire | Semi-Rural | Public/Semi-Public Facilities | Buckman Springs Road, across the road and south of the elementary school | Active. Approximately 12 acres. |
| Channel Road | Mining | Lakeside | Rural | Rural Lands (RL-80) | 10322 Channel Road | Active. Approximately 12 acres. |
| T.T.T. Quarry (Superior Ready Mix Concrete) | Mining (Blasting) | Lakeside | Rural | Rural Lands (RL-20) | 12494 Highway 67 | Active. Approximately 35 acres. |
| El Monte Pit (Hanson) | Pit | Lakeside | Rural | Rural Lands (RL-20) | 14054 El Monte Road | Idle. Approximately 102 acres. |

**Table 2.10-2 (Continued)**

| Quarry Name (Mine Operator) | Type of Activity | Planning Area | Regional Category | Land Use Category | Location | Notes/Area Being Mined |
|---|---|---|---|---|---|---|
| Enniss Enterprises, Inc. (Enniss Enterprises, Inc.) | Mining | Lakeside | Semi-Rural | Medium/High Impact Industrial and Agricultural | 12535 Vigilante Road | Active. Approximately 65 acres. |
| Hester's Granite (Hansen Aggregates PSW, Inc.) | Mining (Blasting) | Crest/Dehesa | Semi-Rural | Semi-Rural Lands (SR-4, SR-2) | 2094 Willow Glen Drive El Cajon | Active. Approximately 94 acres. |
| Highway 67 (Pit 12) (Hansen Aggregates PSW, Inc.) | Mining (Blasting) | Lakeside | Rural | High Impact Industrial | SR 67, east side, NW of Baxter Quarry | Active. Approximately 180 acres. |
| Hillsdale Pit (C.W. McGrath, Inc.) | Mining (Blasting) | Valle de Oro | Semi-Rural | Semi-Rural Lands (SR-1) | Jamacha Road, east side, across from the west end of Hilldale Road | Active. Approximately 64 acres. |
| Inland Valley Materials (Granite Construction Company) | Mining | North County Metro | Semi-Rural | Semi-Rural Lands (SR-1) | 14080 San Pasqual Valley Road, Escondido | Active. Approximately 11 acres. |
| Warner Borrow Pit (County of San Diego, DPW) | Pit | North Mountain | Rural | Open Space (Conservation) | Montezuma Valley Road, east of San Felipe Road | Active. Approximately 4 acres. |
| Lakeside Sand Pit (C.W. McGrath, Inc.) | Pit | Lakeside | Rural | Open Space (Conservation) | Great Southern Overland Stage Route of 1849 | Active. Approximately 2 acres. |
| National Quarries (John Petterson/Kewitt) | Pit | Desert | Rural | Rural Lands (RL-40) | Twin Oaks Valley Road | Active. Approximately 35 acres. |
| Olive Street Borrow Pit (County of San Diego, DPW) | Mining | Ramona | Semi-Rural | Public/Semi-Public Facilities | Via Palo Verde Lago | Intermittent activity. Lake maintenance operation. |
| Rosemary's Mountain (Palomar Aggregates) | Mining (Blasting) | Pala | Rural | Rural Lands (RL-40) | Pala Road, ½ mile west of Rice Canyon Road | Active. Approximately 35 acres. |
| Slaughterhouse Canyon/Asphalt Inc. (Hansen Aggregates PSW, Inc.) | Mining | Lakeside | Rural | Rural Lands (RL-40) | 12560 Highway 67 | Idle. Approximately 140 acres. |
| Tunnel Hill (C.W. McGrath, Inc.) | Pit | Lakeside | Rural | Open Space (Conservation) | 13080 Old Highway 80 | Active. Approximately 14 acres. |
| Woodward Sand (Lakeside Land Company) | Pit | Lakeside | Rural | Specific Plan Area | 10101 Riverford Road | Undergoing reclamation. Approximately 44 acres. |

Source: CGS 2006 and DPLU Records 2009

## Table 2.10-3. Gem and Specimen Mineral Mines Active in San Diego County as of July 2006

| Mine Name | Location | Gems and Specimen Minerals |
|---|---|---|
| 1. Carmelita | Warner Springs | Since Y2000 the San Diego Mining Company has been preparing to open a portal site for the underground emergency escapeway. |
| 2. Cryo-Genie | Warner Springs | The most southerly mine in the Chihuahua Valley pegmatite district. In 2001 the mine yielded a pocket of bright pink tourmaline crystals to 25 cm. long and 10 cm across, the largest tourmaline crystals that have been found in nearly a century. |
| 3. Elizabeth R | Chief Mountain, Pala | A gemstone and specimen mine of the Pala pegmatite area. Currently producing shorl, montmorillonite, lepidolite, tourmaline and others. |
| 4. Himalaya | Mesa Grande | A miarolitic LCT-type granitic pegmatite. First discovered in 1898, the Himalaya pegmatite has been one of the largest producers of gem and specimen-grade tourmaline in North America. Lithaurum LLC and Himalaya Consolidated LLC are both involved with the mining of the Himalaya Mine. |
| 5. Katerina | Hiriart Mountain, Pala | One of the chief sources of unusual minerals in the Pala District. Operated open pit from 1902 to 1940 and underground from 1902 to 1992. Pockets with kunzite and morganite were found in 1996. |
| 6. Little Three | Ramona | A gemstone and specimen mine in pegmatite. One of the prime locations in North America for natural blue topaz. Major finds made in 1976 and 1991. |
| 7. Ocean View | Pala | The mine has been intermittently mined since the late 1800s. Current mining began approximately Y2000. Famous for its diversity of minerals including a pure pink tourmaline (rubellite), green tourmaline (verdelite), and others. Currently producing mostly beryl and natural pink tourmaline, and also quartz, feldspars, lepidolite, beryl, apatite, topaz, tourmaline and other rare species. |
| 8. Pala Chief | Chief Mountain, Pala | Source of some of the finest gem kunzite found in the southern California pegmatites. Occasional finds of spodumene and elbaite occur to this day. |
| 9. San Diego | Mesa Grande | Archie Kuehn and Bill Calhoun and company own the San Diego Mine. |
| 10. Stewart | Queen Mountain, Pala | In late 19$^{th}$ and early 20$^{th}$ centuries, the mine was a source of lithium from massive pods of lepidolite that occur in the complex and highly mineralized granitic pegmatite-aplite dike. Reopened in 1960s as a gem mine and has periodically produced specimens and gem material of elbaite, as well as morganite and kunzite. Now particularly known for reddish-pink elbaite. |
| 11. Stewart Lithia | Queen Mountain, Pala | The Stewart is most famous for its signature “blue-cap” and rubellite tourmaline specimens and was and is a large producer of lepidolite. The geology at the Stewart Mine is among the most complex and geologically significant of all the California tourmaline mines. |
| 12. Tourmaline King | Tourmaline Queen Mountain, Pala | Tons of pink tourmaline was extracted between 1904 and 1909. The mine was idle by 1939. Purchased in 2002 by the San Diego Mining Company; underground mining operations are planned to renew in spring 2007. |
| 13. Tourmaline Queen | Tourmaline Queen Mountain, Pala | One of the major tourmaline producers in southern California from 1903 to the collapse of the local gem market around 1914. Worked intermittently after that. Most famous for the 1972 find of the “Candelabra” blue-cap elbaite that is on display at the Smithsonian Institute in Washington D.C. Since 2000, surface excavation of old underground workings has produced rubellite and pink beryl. |

Sources: Mindat 2008, Gem and Mineral 2008, and Kampf 2003.

## Table 2.10-4. Aggregate Resource Sectors

| Sector | Location | Acreage (Approximate) |
|---|---|---|
| **San Luis Rey River Area** | | |
| Sector A | A small hill of Santiago Peak Volcanics, east of Oceanside. | 587 |
| Sector B | Channel and flood-plain deposits of the San Luis Rey River from near North River Road in Oceanside and extending approximately 6 miles upstream. | 1,307 |
| Sector C | Channel and flood-plain deposits of the San Luis Rey River from near the Highway 78 bridge upstream to near the Interstate 15 bridge. | 2,160 |
| Sector D | Alluvial deposits of the San Luis Rey River, extending discontinuously from the Interstate 15 bridge, upstream to the community of Rincon. | 3,704 |
| Sector E | Alluvial fan deposits on the northern and eastern side of San Luis Rey River from Pala to Pauma Valley. | 5,818 |
| Sector F | Alluvial fan deposits on the eastern side of San Luis Rey River near the community of Rincon. | 857 |
| Sector H | Part of the granitic rock in the Merriam Mountains, north of San Marcos. | 124 |
| **San Pasqual Valley** | | |
| Sector I | Channel and flood-plain deposits in the San Dieguito River and tributaries from Lake Hodges to the eastern end of San Pasqual Valley. | 3,521 |
| **Kearny Mesa-Mission Valley Area** | | |
| Sector J | Mesa-forming Stadium and Pomerado conglomerates centered on the Miramar area. | 34,961 |
| Sector K | Metavolcanic rocks of the Santiago Peak Volcanics located in Mission Gorge. | 386 |
| **Upper San Diego River** | | |
| Sector M | Channel and flood-plain deposits of the San Diego River from the City of Santee to within 1 mile of El Capitan Dam. | 2,150 |
| **Sweetwater River** | | |
| Sector N | Alluvial deposits of the Sweetwater River located near the community of Sunnyside. | 150 |
| Sector O | Alluvial deposits of the Sweetwater River located at the upper end Sweetwater Reservoir. | 183 |
| Sector P | Alluvial deposits of the Sweetwater River located in upper Jamacha Valley. | 343 |
| Sector Q | Alluvial deposits of the Sweetwater River extending from near the Singing Hills Golf Course upstream approximately 4 miles. | 400 |
| **Otay Valley Area** | | |
| Sector R | Channel and flood-plain deposits of the Otay River from Interstate 805 to near the head of Otay Valley. | 2,727 |
| Sector S | Metavolcanic rock deposits of Rock Mountain on the north side of upper Otay Valley. | 360 |
| **Tijuana River** | | |
| Sector U | Flood-plain deposits of the Tijuana River from the international boundary downstream approximately 4 miles. | 2,197 |
| **Border Highlands** | | |
| Sector V | Conglomerate deposits of the San Diego Formation in the Border Highlands, immediately south of the Tijuana River. | 475 |

**Table 2.10-4 (Continued)**

| Sector | Location | Acreage (Approximate) |
|---|---|---|
| **San Luis Rey River Area** | | |
| Sector A | A small hill of Santiago Peak Volcanics, east of Oceanside. | 587 |
| Sector B | Channel and flood-plain deposits of the San Luis Rey River from near North River Road in Oceanside and extending approximately 6 miles upstream. | 1,307 |
| Sector C | Channel and flood-plain deposits of the San Luis Rey River from near the Highway 78 bridge upstream to near the Interstate 15 bridge. | 2,160 |
| Sector D | Alluvial deposits of the San Luis Rey River, extending discontinuously from the Interstate 15 bridge, upstream to the community of Rincon. | 3,704 |
| Sector E | Alluvial fan deposits on the northern and eastern side of San Luis Rey River from Pala to Pauma Valley. | 5,818 |
| Sector F | Alluvial fan deposits on the eastern side of San Luis Rey River near the community of Rincon. | 857 |
| Sector H | Part of the granitic rock in the Merriam Mountains, north of San Marcos. | 124 |
| **San Pasqual Valley** | | |
| Sector I | Channel and flood-plain deposits in the San Dieguito River and tributaries from Lake Hodges to the eastern end of San Pasqual Valley. | 3,521 |
| **Kearny Mesa-Mission Valley Area** | | |
| Sector J | Mesa-forming Stadium and Pomerado conglomerates centered on the Miramar area. | 34,961 |
| Sector K | Metavolcanic rocks of the Santiago Peak Volcanics located in Mission Gorge. | 386 |
| **Upper San Diego River** | | |
| Sector M | Channel and flood-plain deposits of the San Diego River from the City of Santee to within 1 mile of El Capitan Dam. | 2,150 |
| **Sweetwater River** | | |
| Sector N | Alluvial deposits of the Sweetwater River located near the community of Sunnyside. | 150 |
| Sector O | Alluvial deposits of the Sweetwater River located at the upper end Sweetwater Reservoir. | 183 |
| Sector P | Alluvial deposits of the Sweetwater River located in upper Jamacha Valley. | 343 |
| Sector Q | Alluvial deposits of the Sweetwater River extending from near the Singing Hills Golf Course upstream approximately 4 miles. | 400 |
| **Otay Valley Area** | | |
| Sector R | Channel and flood-plain deposits of the Otay River from Interstate 805 to near the head of Otay Valley. | 2,727 |
| Sector S | Metavolcanic rock deposits of Rock Mountain on the north side of upper Otay Valley. | 360 |
| **Tijuana River** | | |
| Sector U | Flood-plain deposits of the Tijuana River from the international boundary downstream approximately 4 miles. | 2,197 |
| **Border Highlands** | | |
| Sector V | Conglomerate deposits of the San Diego Formation in the Border Highlands, immediately south of the Tijuana River. | 475 |

Source: DMG 1982

## Table 2.10-5. Lands Classified as MRZ-2 Since 1982

| Property | Location | Acreage (Approximate) |
|---|---|---|
| Sycamore Ridge Property | Granitic rock deposit in the Merriam Mountains. | 486 |
| Pankey Ranch Site (Rosemary's Mountain Quarry) | Predominantly granitic rock in northern San Diego County just east of the intersection of I-15 and SR-76, classified for mixed construction aggregate, with some material being suitable for PCC-grade aggregate. | 76 |
| San Marcos Quarry | Granitics of mostly quartz diorite and granodiorite on the northeastern part of the property and metavolcanics on the southwestern part, reclassified as MRZ-2 from MRZ-3, for construction aggregate and PCC-grade aggregate. | 544 |
| TTT Quarry | Light-colored, fresh, fine-grained quartz monzonite in Lakeside was reclassified from MRZ-3 to MRZ-2 for PCC-grade aggregate. | N/A |
| San Vicente Creek | Sand deposits in the creek and floodplain downstream from the dam reclassified from MRZ-4 to MRZ-2 for PCC-grade aggregate in Lakeside. | 450 |
| Hester's Granite Quarry | Quarry in the Valle de Oro area reclassified from MRZ-3 to MRZ-2 for PCC-grade aggregate. The deposit is deeply weathered hornblende gabbro (granitic), sold as decomposed granite and base material. Large hard boulders are broken and used for riprap and crushed aggregate. | 100 |
| Jamul Creek/ Dulzura Creek | Metavolcanic rock on the southern side of Jamul Creek and Dulzura Creek, approximately a mile upstream of the Lower Otay Reservoir classified MRZ-2 for PCC-grade aggregate. | 148 (outside the P-C Region) |
| Twin Oaks Valley Road, National Quarries | Has been commercially mined since 1940. Mostly mined for dimension stone. Currently mined for aggregates, decomposed granite, boulders, rip-rap, and dimension stone. | 211 |

Sources: DMG 1996, DMG 2006.

## Table 2.10-6. Proposed Land Uses in the Unincorporated County in Areas Designated MRZ-2

| Countywide Land Use | Acres |
|---|---|
| Semi-rural Residential | 44,425 |
| National Forest and State Parks | 33,287 |
| Specific Plan Area | 24,957 |
| Rural Lands | 15,815 |
| Commercial | 6,618 |
| Open Space | 5,157 |
| Public/Semi-Public Facilities | 4,921 |
| Village Residential | 3,980 |
| Office Professional | 185 |
| Tribal Lands | 163 |
| Village Core Mixed Use | 116 |
| Industrial | 13 |
| **Countywide Total** | **139,636** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.10-7. Proposed Land Uses in Areas Designated MRZ-2 by CPA and Subregion

| CPA/Subregion | Land Use | Acres |
|---|---|---|
| Alpine | National Forest and State Parks | 33,287 |
| | Open Space | 808 |
| | **Alpine Total** | **34,095** |
| Bonsall | Commercial | 504 |
| | Office Professional | 185 |
| | Open Space | 2,199 |
| | Public/Semi-Public Facilities | 99 |
| | Rural Lands | 2,471 |
| | Semi-rural Residential | 19,283 |
| | Specific Plan Area | 22,829 |
| | Village Residential | 70 |
| | **Bonsall Total** | **47,639** |
| County Islands | Public/Semi-Public Facilities | 19 |
| | Rural Lands | 11 |
| | **County Islands Total** | **30** |
| Crest/Dehesa | Open Space | 95 |
| | Rural Lands | 59 |
| | Semi-rural Residential | 347 |
| | Specific Plan Area | 1,398 |
| | **Crest/Dehesa Total** | **1,899** |
| Fallbrook | Commercial | 802 |
| | Open Space | 20 |
| | Public/Semi-Public Facilities | 1,399 |
| | Rural Lands | 24 |
| | Semi-rural Residential | 20,815 |
| | Specific Plan Area | 17 |
| | Village Core Mixed Use | 116 |
| | Village Residential | 76 |
| | **Fallbrook Total** | **23,269** |
| Jamul/Dulzura | Rural Lands | 8,703 |
| | **Jamul/Dulzura Total** | **8,703** |
| Lakeside | Commercial | 129 |
| | Industrial | 13 |
| | Open Space | 90 |
| | Public/Semi-Public Facilities | 10 |
| | Rural Lands | 252 |
| | Semi-rural Residential | 378 |
| | Specific Plan Area | 4 |
| | Village Residential | 406 |
| | **Lakeside Total** | **1,283** |

**Table 2.10-7 (Continued)**

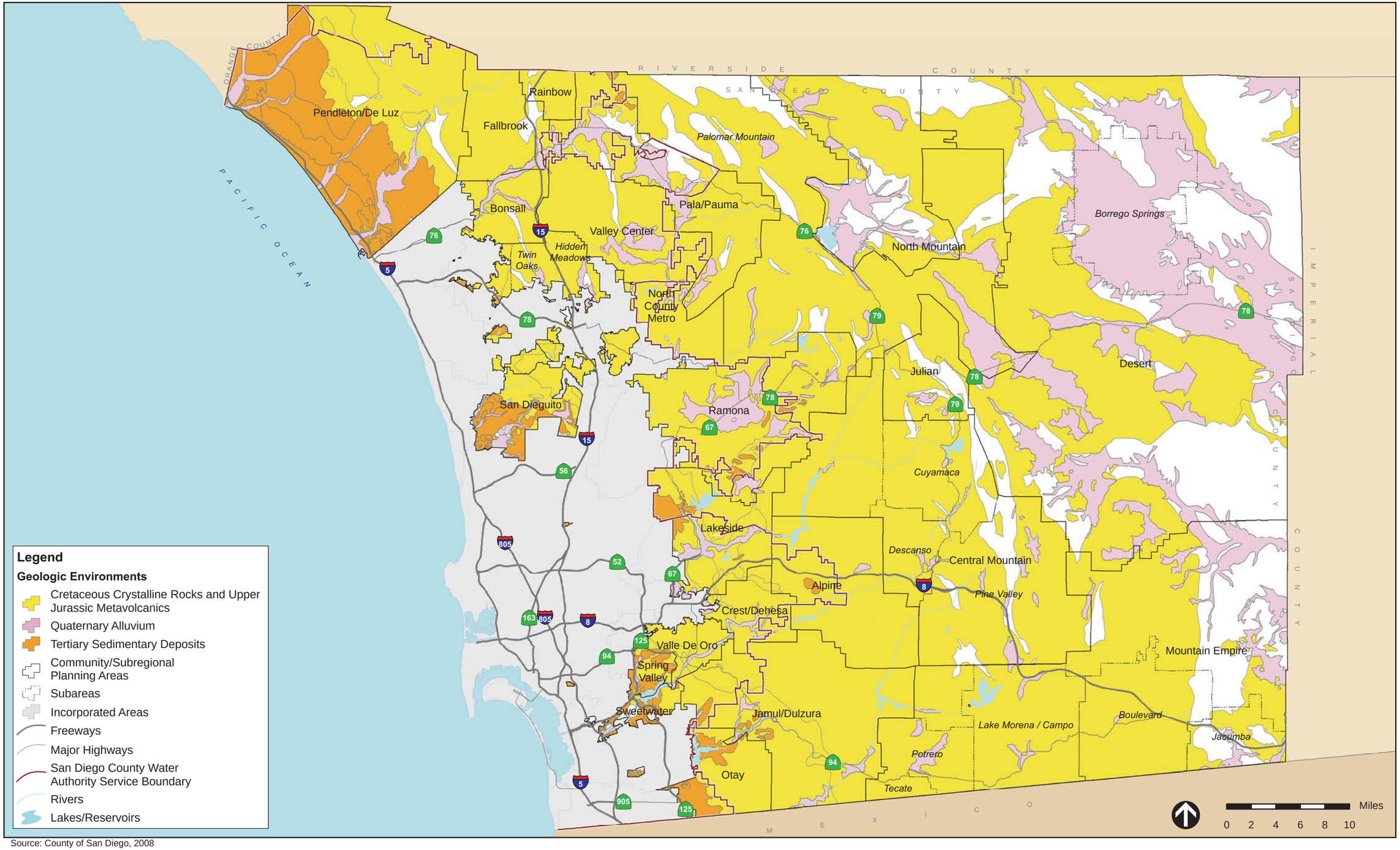
| CPA/Subregion | Land Use | Acres |
|---|---|---|
| North County Metro | Commercial | 4,712 |
| | Public/Semi-Public Facilities | 430 |
| | Rural Lands | 1,281 |
| | Semi-rural Residential | 24 |
| | **North County Metro Total** | **6,447** |
| North Mountain | Commercial | 212 |
| | Rural Lands | 398 |
| | **North Mountain Total** | **610** |
| Otay | Open Space | 278 |
| | Public/Semi-Public Facilities | 2,707 |
| | Rural Lands | 2,285 |
| | **Otay Total** | **5,270** |
| Pala/Pauma Valley | Commercial | 259 |
| | Open Space | 6 |
| | Public/Semi-Public Facilities | 11 |
| | Rural Lands | 151 |
| | Semi-rural Residential | 953 |
| | Tribal Lands | 163 |
| | Village Residential | 3,325 |
| | **Pala/Pauma Total** | **4,868** |
| San Dieguito | Public/Semi-Public Facilities | 183 |
| | Specific Plan Area | 658 |
| | **San Dieguito Total** | **842** |
| Spring Valley | Open Space | 73 |
| | Specific Plan Area | 8 |
| | **Spring Valley Total** | **81** |
| Sweetwater | Open Space | 4 |
| | Open Space | 1,190 |
| | Public/Semi-Public Facilities | 63 |
| | Semi-rural Residential | 97 |
| | Village Residential | 104 |
| | **Sweetwater Total** | **1,457** |
| Valle de Oro | Open Space | 394 |
| | Rural Lands | 179 |
| | Semi-rural Residential | 2,512 |
| | Specific Plan Area | 43 |
| | Village Residential | 0 |
| | **Valle de Oro Total** | **3,128** |
| Valley Center | Semi-rural Residential | 16 |
| | **Valley Center Total** | **16** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.10-8. Proposed Land Uses in the Unincorporated County in Areas Designated MRZ-3

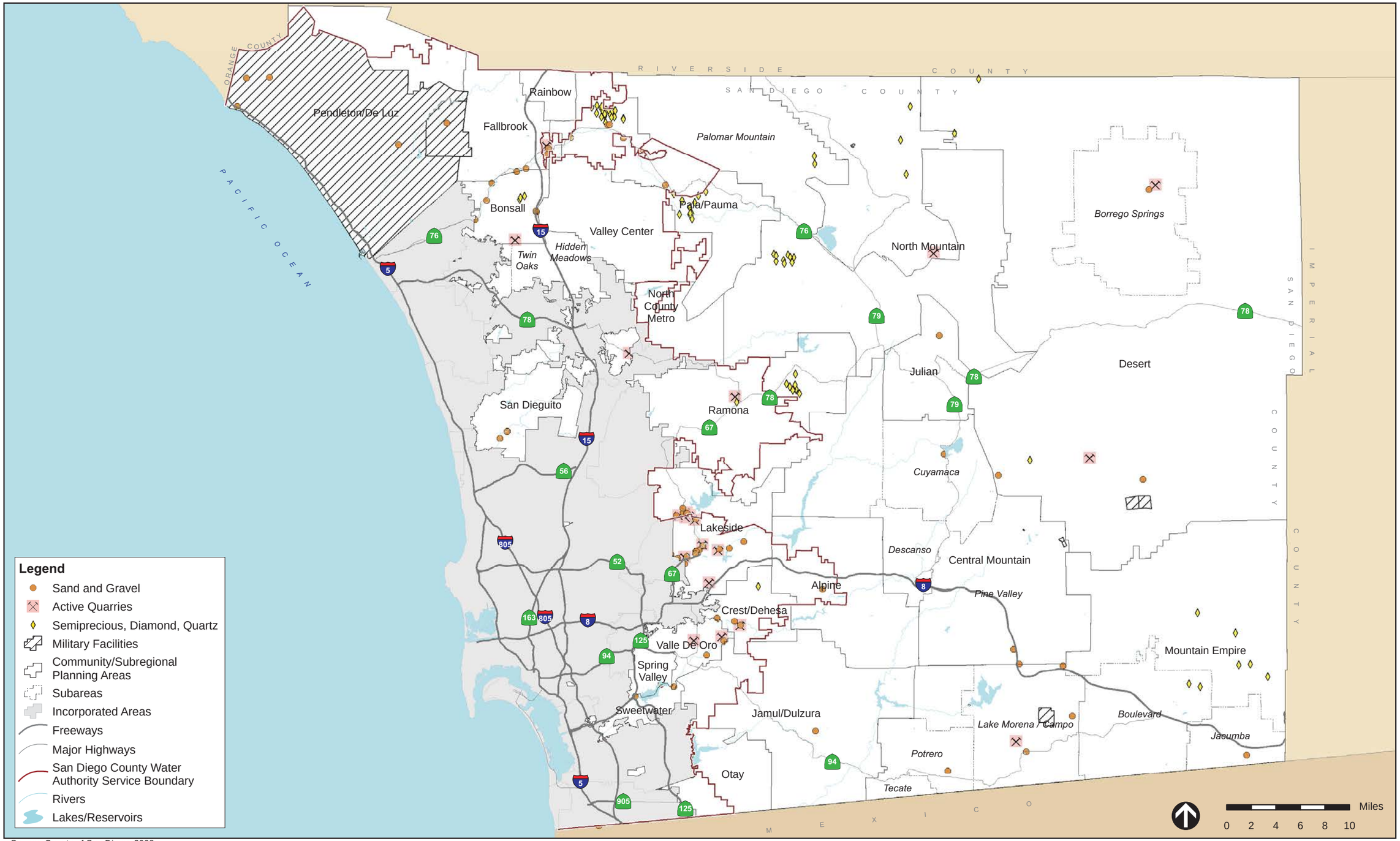
| Land Use | Acres |
|---|---|
| Semi-rural Residential | 367,298 |
| Village Residential | 115,393 |
| Rural Lands | 89,565 |
| Office Professional | 69,047 |
| Tribal Lands | 55,184 |
| Public/Semi-Public Facilities | 44,336 |
| Open Space | 40,368 |
| Commercial | 27,775 |
| Industrial | 14,118 |
| Specific Plan Area | 13,998 |
| National Forest and State Parks | 13,317 |
| Village Core Mixed Use | 5,414 |
| Military Installations | 310 |
| **Countywide Total** | **856,123** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008



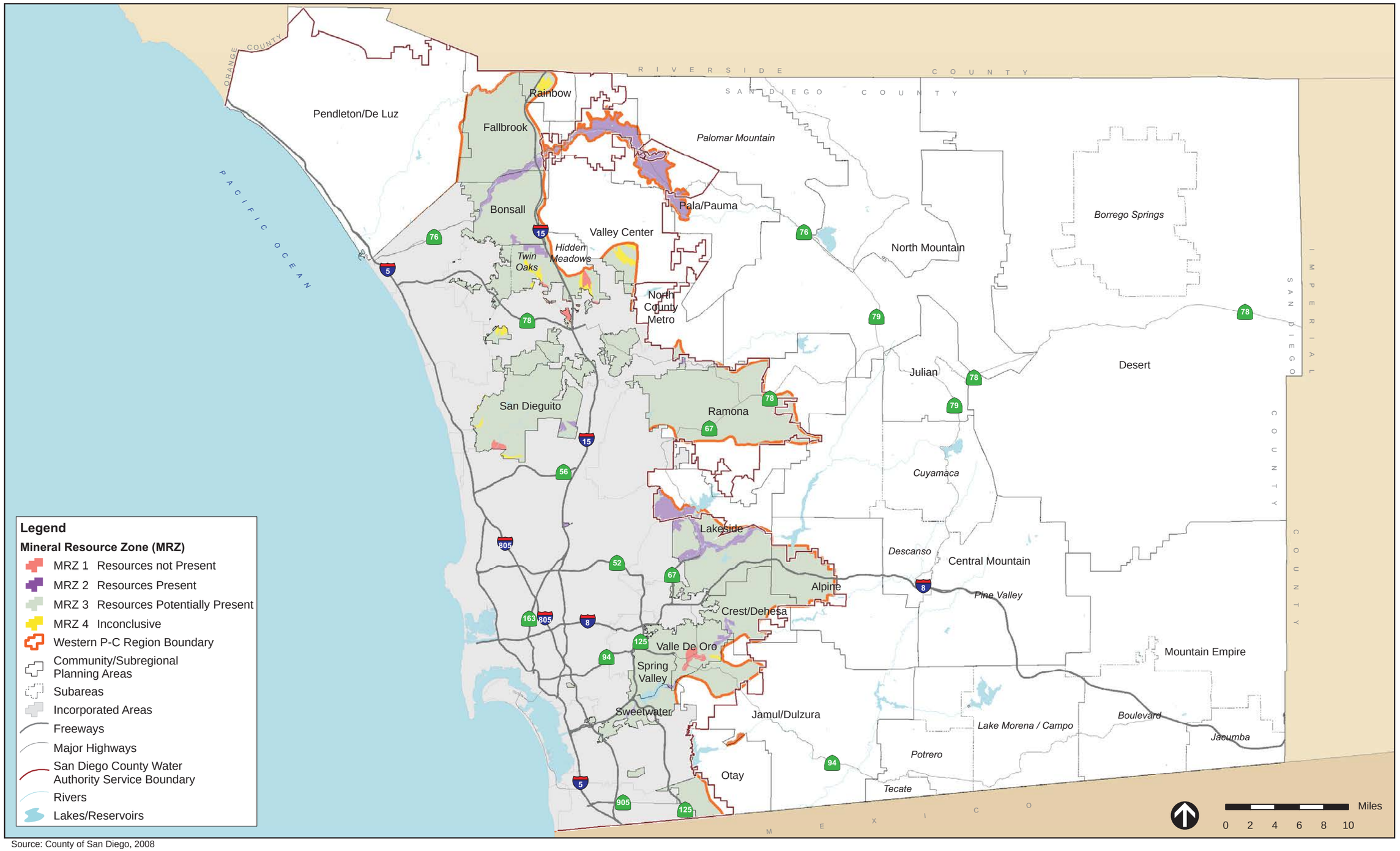

Source: County of San Diego, 2008

**SAN DIEGO COUNTY GEOLOGIC ENVIRONMENTS** **FIGURE 2.10-1**




Source: County of San Diego, 2008

**EXISTING MINERAL RESOURCES IN SAN DIEGO COUNTY** **FIGURE 2.10-2**




Source: County of San Diego, 2008

**SAN DIEGO COUNTY MINERAL RESOURCE ZONES** **FIGURE 2.10-3**

# 2.11 Noise

This section of the EIR describes the existing ambient noise environment, including the sources of noise, in the County in relation to noise sensitive land uses. In addition, relevant local noise standards and guidelines are described. This section is based on the review of the Noise Technical Report for the County of San Diego General Plan Update (PBS&J 2009), County of San Diego General Plan, Noise Element Background Report (DPLU 2007d), and the County of San Diego Guidelines for Determining Significance, Noise (DPLU 2009c).

A summary of the impacts associated with noise identified in Section 2.11.3 is provided below.

**Noise Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Excessive Noise Levels | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Excessive Groundborne Vibration | Potentially Significant | Potentially Significant | Less Than Significant |
| 3 | Permanent Increase in Ambient Noise Levels | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 4 | Temporary Increase in Ambient Noise Levels | Potentially Significant | Less Than Significant | Less Than Significant |
| 5 | Excessive Noise Exposure from a Public or Private Airport | Potentially Significant | Potentially Significant | Less Than Significant |

## 2.11.1 Existing Conditions

### *2.11.1.1 Characteristics of Noise and Vibration*

**Fundamentals of Noise**

Noise is typically defined as unwanted sound. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Sound pressures in the environment have a wide range of values and the sound pressure level was developed as a convenience in describing this range as a logarithm of the sound pressure. To be consistent throughout the world, the sound pressure level is the logarithm of the ratio of the unknown sound pressure to an agreed upon reference quantity of the same kind. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA). Typical A-weighted noise levels are listed in Table 2.11-1.

A given level of noise would be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, time of day during which the noise is experienced, and activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep has the potential to be disturbed. Additionally, rest at night is a critical requirement in the recovery from exposure to

high noise levels during the day. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. For example, some indices consider the 24-hour noise environment of a location by using a weighted average to estimate its habitability on a long term basis. Other measures consider portions of the day and evaluate the nearby activities affected by it as well as the noise sources. The most commonly used indices for measuring community noise levels are the Equivalent Energy Level (Leq), and the Community Noise Equivalent Level (CNEL).

- **Leq,** the Equivalent Energy Level, is the average acoustical or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. It is the decibel sound level that contains an equal amount of energy as a fluctuating sound level over a given period of time.

- **CNEL,** Community Noise Equivalent Level, is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA for each doubling of distance from the source. Sound that originates from a linear, or "line" source such as a heavily traveled traffic corridor, attenuates by approximately 3 dBA per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise. Noise from roadways in environments with major ground effects due to vegetation and loose soils would either absorb or scatter the sound yielding attenuation rates as high as 4.5 dBA for each doubling of distance. Other contributing factors that affect sound reception include meteorological conditions and the presence of manmade obstacles such as buildings and sound barriers.

## Noise Effects

Noise has a significant effect on the quality of life. An individual's reaction to a particular noise depends on many factors such as the source of the noise, its loudness relative to the background noise level, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a three decibel change in community noise levels is perceivable, while one to two decibel changes generally are not perceived. Although the reaction to noise would vary, it is clear that noise is a significant component of the environment, and excessively noisy conditions can affect an individual's health and well-being. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on a community can be organized into six broad categories: sleep disturbance; permanent hearing loss; human performance and behavior; social interaction of communication; extra-auditory health effects; and general annoyance.

## Noise Sensitive Land Uses

Noise sensitive land uses include areas where an excessive amount of noise would interfere with normal activities. Primary noise sensitive land uses include residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. Sleep disturbance is the most critical concern for a noise sensitive land use on a 24-hour basis or longer compared to activities that are occupied only a portion of a day.

## Groundborne Vibration

Vibration consists of waves transmitted through solid material (Baranek and Ver 1992). Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be comprised of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). The normal frequency range of most ground-borne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Ambient and source vibration are often expressed in terms of the peak particle velocity (PPV) or root mean square (RMS) velocity in inches per second (in/sec) that correlates best with human perception. The Federal Transit Administration (FTA) estimates that the threshold of perception is approximately 0.0001 in/sec RMS and the level at which continuous vibrations begins to annoy people is approximately 0.001 in/sec RMS (FTA 2006).

Ground-borne vibration can be a concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The rumbling sound caused by the vibration of building structures is referred to as ground-borne noise. The annoyance potential of ground-borne noise is usually characterized with the A-weighted sound level, which is intended to represent the normal frequency response of the human ear. However, there are potential problems when characterizing low-frequency noise using A-weighting, because human hearing causes sounds dominated by low-frequency components to seem louder than broadband sounds that have the same A-weighted level. This is accounted for by setting the limits for groundborne noise lower than would be the case for broadband noise. Other weighting schemes are used in other jurisdictions. For example, a jurisdiction with a higher existing level of vibration would use the alternate C-weighting curve, which is a more accurate representation of human response at very high or very low frequencies than the A-weighting curve (Brüel & Kjær 2000).

**Vibration Sensitive Land Uses**

Ground-borne vibration can disrupt vibration sensitive land uses by causing movement of buildings, rattling of windows and items inside buildings, rumbling sounds, and even property damage. Vibration sensitive land uses include buildings where vibration would interfere with operations within the building, such as vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. The degree of sensitivity to vibration depends on the specific equipment that would be affected by the vibration. Electron microscopes and high-resolution lithography equipment function within certain scientific and manufacturing tolerances that can be compromised in high vibration environments. Residential uses are also sensitive to excessive levels of vibration of either a regular or an intermittent nature. According to the Transit Noise and Vibration Impact Assessment (FTA 2006), background vibration level in residential areas is typically 0.00003 in/sec RMS, which is lower than 0.0001 in/sec RMS, the threshold of perception for humans. There are several sources of groundborne vibration in the unincorporated County including construction, railroad operations, and extractive mining operations.

## *2.11.1.2 Ambient Noise Setting*

**Environmental Setting**

The County of San Diego is characterized as a primarily rural environment with low-density development that contributes significantly to the perceived quality of life and the peace and tranquility that exist within the County. However, several higher density communities, including Valle de Oro CPA, Spring Valley CPA, and Sweetwater CPA, also exist, which have a louder ambient noise environment. Major sources of noise include transportation and non-transportation related activities, as discussed below.

**Transportation Noise Generators**

The most common source of noise in rural and semi-rural environments is transportation-related. Transportation noise generators within the unincorporated County include roadways, airports, and railways. A discussion of each of these noise sources is provided below.

**Roadways**

Traffic on roadways is the most substantial and common source of noise in San Diego County. Roadways have been and will continue to be the primary mode of transportation for San Diego County residents. According to the San Diego Association of Government's (SANDAG) most recent transportation data on the unincorporated region, 14.5 million vehicle miles are traveled daily on County of San Diego roads (SANDAG 2008b). There are several key factors associated with roadway or traffic noise, including traffic volumes; the speed of the traffic; the type or "mix" of vehicles using a particular roadway; and pavement conditions. The roadway network in the unincorporated County consists of State highways, interstate highways, regional arterials, local public roads, and private roads. Noise would also vary by time of day. Some roadways would be heavily traveled by commuters during the morning and late afternoon peak hours, but relatively vacant during non-peak commuting hours. Highways and arterials generally accommodate high speed, high volume traffic, and are designed to provide for the movement of people and goods between and within communities in the County. The interstate

highways in the unincorporated County include I-15, I-5, and I-8. I-15 and I-5 traverse the western portion of the County from north to south, while I-8 crosses the southern portion of the County from west to east. Major State highways include SR-94, SR-78, SR-79, and SR-76. SR-94 is located in the southwestern area of the unincorporated County, while SR-78, SR-79, and SR-76 all serve the eastern portion of unincorporated County. Examples of major arterials include Jamacha Road in Valle de Oro CPA, Sweetwater Road in Spring Valley CPA, Tecate Road in Mountain Empire Subregion, and South Santa Fe Avenue in North County Metro Subregion.

Local roads serve lower speed, lower volume traffic and provide access to local residential neighborhoods and commercial and industrial areas in each of the communities throughout the unincorporated County. These roads also feed traffic onto the larger highways and arterials. Examples of local roads are Gopher Canyon Road in Bonsall CPA and Olive Hill Road in Fallbrook CPA. Private roads are generally not available to the public and serve a limited number of travelers. Examples include private driveways or maintenance roads.

The number and type of roads varies across the unincorporated County. In the eastern backcountry communities, the roadway network is generally characterized by local roads and State highways that connect widely spaced development. The northwestern and southwestern communities are characterized by a denser roadway network consisting of major arterials and local roads, as well as interstate and State highways, to support the higher density residential, commercial and industrial development in these communities.

### Airports

Another transportation-related noise source in the County is aviation operations. Noise generated from aviation operations is concentrated around airport buildings, runways, and along approach and departure routes. Six public airports are located in the unincorporated County: Agua Caliente Airstrip (Desert Subregion), Borrego Valley Airport (Desert Subregion), Fallbrook Community Airpark (Fallbrook CPA), Jacumba Airport (Mountain Empire Subregion), Ocotillo Airstrip (Desert Subregion), and Ramona Airport (Ramona CPA). The County also owns Gillespie Field Airport in the City of El Cajon, which is located in close proximity to Lakeside CPA. Current public airport operations are provided in Table 2.11-2. Additionally, 29 smaller private-use airports are scattered throughout the unincorporated County, including U.S. Forest Service airstrips in the Pendleton/De Luz CPA and Alpine CPA, private or personal use airstrips in Bonsall CPA and Mountain Empire Subregion, Lake Wohlford airstrip in North County Metro Subregion, Pauma Valley Airpark in Pala/Pauma Valley Subregion, a State Parks airstrip in North Mountain Subregion, and Special Use BLM airstrips in the Desert Subregion. The United State Marine Corps operates an airstrip at Marine Corps Base Camp Pendleton in the Pendleton/De Luz CPA.

### Railroads

Five railroad providers operate on two railroad corridors within the San Diego region, including: 1) NCTD; 2) MTS; 3) Burlington Northern Santa Fe Railroad (BNSF); 4) Carrizo Gorge Railway (CGR); and 5) San Diego and Imperial Valley Railroad (SD&IV). Although primarily located within the incorporated cities, some rail services extend into unincorporated County areas. The North County Transit District operates the Sprinter, a light rail transit line that extends from Oceanside to Escondido, which serves an area in the North County Metro Subregion. The

Amtrak and Coaster passenger lines run along the coast through Marine Corps Base Camp Pendleton. The San Diego & Arizona Eastern Railway's (SD&AE) Desert Line is the primary freight rail line that traverses the unincorporated County. SD&IV operates freight services on this line. It extends through the Mountain Empire Subregion. However, this line is not currently operating and, according to SANDAG, a date for reopening the line has not been established (SANDAG 2009). The extent of the noise generated from passenger and freight trains depend on many factors, including the frequency of train operations, the number of railway cars, the type of engine, and the number of grade crossings that require warning bells or horns. In addition, train pass-by events would cause adjacent land use to be affected by groundborne vibration. However, according to SANDAG, the Desert Line portion of the SD&AE railway has been closed since 1983. SANDAG has recommended reopening the line; however, there is currently no proposed date to reopen the line (SANDAG 2008f).

**Non-Transportation Noise Generators**

Non-transportation related noise generators are commonly called "stationary," "fixed," "area," or "point" sources of noise. Industrial processing, mechanical equipment, pump stations, and heating, ventilating, and air conditioning (HVAC) equipment are examples of fixed location, non-transportation noise sources within the County of San Diego. Some non-transportation sources are not stationary but are typically assessed as point or area sources due to the limited area in which they operate, such as truck deliveries, agricultural field machinery, and mining equipment.

**Industrial, Commercial, Extractive, and Agricultural Sources**

Noise generated by industrial and commercial operations, maintenance, manufacturing, truck traffic (loading docks), and warehousing noise can affect surrounding noise sensitive land uses. Noise perceived as disruptive by residents in proximity to existing agricultural operations has the potential to result from the operation of agricultural machinery in the evening or early morning hours when many residents desire a quiet environment. In addition, operation of exterior exhaust and cooling system equipment typically used in greenhouse operations can be a source of noise that has the potential to affect surrounding land uses.

Industrial operations are located in Alpine CPA, Fallbrook CPA, Jamul/Dulzura Subregion, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Ramona CPA, San Dieguito CPA, Spring Valley CPA, and Valle de Oro CPA. The major industrial area in the Mountain Empire Subregion, Tecate, is located along the U.S./Mexico international border, in close proximity to Tecate, Mexico, which is also an industrial center. Large areas of commercial land uses are located in the more developed planning areas in the western portion of the unincorporated County, including: Spring Valley CPA, Valle de Oro CPA, Lakeside CPA, Ramona CPA, San Dieguito CPA, and North County Metro Subregion.

Although mineral resources are located throughout the County, mining operations are located primarily in the western half of the unincorporated County because of the availability of transportation facilities to transport these resources. Extractive facilities mine the ground surface or subsurface for removal of sand, gravel, rock, and nonmetallic minerals. As of June 2006, 20 aggregate or construction materials mines were permitted and active within the unincorporated County, including 16 mines in the western portion of the County and four mines in the eastern desert region. The planning areas where extractive uses are located include Lakeside CPA, Mountain Empire Subregion, Desert Subregion, Crest/Dehesa Subregion, Valle

de Oro CPA, and North County Metro Subregion. Additionally, 13 mines for the extraction of industrial, chemical mineral materials, metallic, and rare minerals such as gems are currently active in three planning areas of the unincorporated County: Pala/Pauma Valley Subregion, North Mountain Subregion, and Ramona CPA. Mineral resources and extraction sites are discussed in greater detail in Section 2.10, Mineral Resources.

Heavy equipment used in quarry and mining activities and blasting operations have the potential to generate noise levels that expose surrounding land uses to noise levels exceeding noise standards. Additionally, off-site noise has the potential to be generated associated with the transportation of materials to and from the mining facility. Typical noise sources and sound levels for mining operations in the unincorporated County were summarized from technical noise reports previously prepared for several extractive operations throughout the County and are provided in Table 2.11-3. Typical operations at these sites include extraction of sand resources using front end loaders or hydraulic excavators, topsoil blending using similar equipment, and rock extraction using power shovels. Processing of resources includes screening and separating material using motorized power screens or wet-cyclone screening, aggregate washing plants, rock crushing, rock sawing, and rock polishing. Bulldozers and front end loaders are used to load materials onto trucks for stockpiling or delivery. Backfilling of extraction sites also takes place. Groundborne vibrations from blasting, manufacturing and other extractive operations have the potential to also affect vibration sensitive land uses.

Agricultural operations also have the potential to generate noise levels that are incompatible with surrounding land uses. It is estimated that of the County's approximately 2.7 million acres of land, 308,991 acres are in active agricultural use (AWM 2008). Major agricultural areas are located in Bonsall CPA, Fallbrook CPA, Jamul/Dulzura Subregion, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Rainbow CPA, Ramona CPA, and Valley Center CPA. Major crop categories for the County of San Diego include nursery and flower crops, fruit and nut crops, vegetable crops, livestock and poultry, livestock and poultry products, field crops, timber, and apiary products. The noise sources that generate the highest sound levels are chainsaws, crop dusting aircraft, and tractors. The majority of agricultural noise in the unincorporated County comes from horticultural and agricultural processing operations (DPLU 2007d).

**Temporary and/or Nuisance Noise**

While motorized recreation can be disruptive, it is an allowed use in residential areas. The County does not agree that motorized recreation should be limited to special designations. To do so would create difficulties in monitoring and enforcing private use of motorized vehicles on private lands.

In addition, the County does not agree that this issue should be addressed within the Land Use or Recreation sections of the DEIR. The County concedes that motorized recreation is a potential impact associated with residential use types. Within the DEIR, impacts associated with residential development are evaluated by the type of resource they affect. The comment notes that motorized recreation is not compatible with "areas near residents, sensitive habitats, or wildlife corridors." With regard to this activity near residents, the adverse impact would be the effects of noise. Annoyance or discomfort caused by use of motor vehicles is regulated by the County Noise Ordinance. In addition, the following clarification was added to Section of the DEIR under subheading "Temporary and/or Nuisance Noise":

Intermittent or temporary neighborhood noise from amplified music, public address systems, barking dogs, landscape maintenance, stand-by power generators, motorized recreation, and construction activities are disturbing to residents but are difficult to attenuate and control. The County's record of noise complaints by community is shown in Table 2.11-4. This table shows that the majority (approximately 74 percent) of noise complaints in the unincorporated County are associated with barking dogs. Roosters and machinery are also common sources of noise complaints, each accounting for approximately seven percent of complaints. The least common source of noise complaints are birds, accounting for approximately two percent of noise complaints. Noise complaints occur more frequently in densely developed areas of the unincorporated County, such as the Spring Valley CPA and Valle de Oro CPA, as well as areas that are heavily agricultural, such as Fallbrook CPA and Valley Center CPA. However, this table only includes complaints that were received by the County's Office of Noise Control. Other noises complaints may have been reported to the San Diego County Sherriff's Department or were not reported.

## Community Noise Survey

During February and March 2008, PBS&J conducted noise measurements with the purpose of establishing baseline for transportation and non-transportation noise generators throughout San Diego County. Locations were monitored using a Larson-Davis ANSI Type II integrating sound level meter to establish existing ambient noise levels. Noise meter locations varied for each measurement according to site accessibility. A total of 44 short-term (15-minute) measurements were conducted to provide a basis for understanding the overall existing noise environment of the County of San Diego. A 15-minute sample is considered a "snapshot" of the baseline noise environment at a given time; however, the sound level would vary depending on time, day or season. Table 2.11-5 summarizes the noise levels measured for the varied land uses within the County. As shown in this table, freeways and highways, major arterials, and railroads were the land use designations where the highest noise levels were measured. Lower short-term noise levels were measured near airports, agricultural areas, and near some noise sensitive land uses.

The results of the community noise survey show that the locations with the highest noise levels (between 70 dBA and 74 dBA Leq) were roadways, (including I-8, boulevards, and a prime arterial), a Sprinter pass-by area in North County Metro Subregion, a shooting range in Valle do Oro CPA, Ramona Landfill, and construction in Spring Valley CPA. The locations with the lowest noise levels (between 43 dBA and 50 dBA) were a resort in Borrego Springs, residential development in San Dieguito CPA and Lakeside CPA, and noise-sensitive biological resources in Lakeside CPA, all of which were subject to limited traffic noise. Other land use designations in this range were a recreational park in Julian CPA, a school in Pala/Pauma Valley Subregion with school bells and children at recess, and agricultural use in Pala/Pauma Valley Subregion utilizing tractors and forklifts. The results of each noise monitoring location, including the land use category, community plan area, major noise source, and Leq associated with each location, are included in Appendix A of the Noise Technical Report (PBS&J 2009), included as Appendix F of this EIR. All noise meter measurements are referenced by a location number and each location number corresponds to data listed in Appendix A of the Noise Technical Report (PBS&J 2009). Noise measurement locations are shown on Figure 2.11-1.

Two 24-hour noise measurements were also conducted as part of the community noise survey. The purpose of a long-term measurement is to sample the fluctuation in noise levels that occur throughout the day, though the sound level would vary depending on the day of the week or

season. The locations of the measurement sites were chosen to represent the sound level that noise sensitive land uses have the potential to be exposed to near a freeway (I-15) and near a roadway that provides primary access to a casino. Table 2.11-6 includes the summary of noise level data from the two 24-hour sampling sites including the site location, the community CNEL, and the ranges for the hourly Leq, maximum sound level (Lmax), and minimum sound level (Lmin) for each sample. The first CNEL measurement, located approximately 220 feet from I-15, was 66 dBA and the 24-hour Leq was 62 dBA with no time of day corrections. The second CNEL measurement, located at approximately 60 feet from the centerline of the road leading to the casino, was 73 dBA and the corresponding 24-hour Leq was 67 dBA. The noise level along I-15 was generally constant throughout the day and evening, with a decrease in noise level in the early morning, about midnight to 4:00 a.m., when traffic on I-15 is lighter. The noise level near the casino was generally constant over the 24 hour period, suggesting that traffic to and from the casino is continuous at all hours of the day and night. Additional noise monitoring data for the 24-hour monitoring sites is included in Appendix A of the Noise Technical Report (PBS&J 2009).

**Noise Contours**

Noise level contours are used as a guide for minimizing the exposure of community residents to noise. Noise contours represent lines of equal noise exposure, just as the lines on a weather map indicate equal temperature or atmospheric pressure. Contours are used to provide a general visualization of sound levels and should not be considered as absolute lines of demarcation. Noise contours for roadway noise sources in the County were developed for existing conditions (2007) and proposed General Plan Update conditions (2030) and are expressed as CNEL values. The noise model results are included in Appendix B of the Noise Technical Report (PBS&J 2009), provided as Appendix F of this EIR.

Existing noise contours are shown on Figure 2.11-2. Future noise contours for roadways are presented on Figure 2.11-3 for build-out conditions. Figures 2.11-2 and 2.11-3 also display the noise contours for the public airports and railroads in the County.

## 2.11.2 Regulatory Framework

### *2.11.2.1 Federal*

**Federal Aviation Administration (FAA) Standards**

Enforced by the FAA, Title 14, Part 150 prescribes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, State, and federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs. The FAA establishes a CNEL of 65 dBA as the noise standard associated with aircraft noise. This standard is also generally applied to railroad noise [FAR Part 150, Section 150.21].

**Federal Highway Administration (FHWA) Standards**

Title 23, Part 772 sets procedures for the abatement of highway traffic noise and construction noise. Title 23 is implemented by the Department of Transportation Federal Highway Administration. The purpose of this regulation is to provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways. All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the DOT Federal Highway Administration Noise Standards. Title 23 establishes a 67 dBA standard to federal highway projects [23 CFR Chapter 1, Part 772, Section 772.19].

**Federal Railroad Administration (FRA) Standards**

For high-speed ground transportation (HSGT) projects, responsible agencies require methods provided by the FRA for NEPA evaluation of a project's potential impacts considering the adjacent land uses designations, existing ambient conditions, and future exposure levels. The FRA standards provide methods to assist in the evaluation of high-speed designs in contrast to more standard mass transit developments.

**Federal Transit Administration (FTA) Standards**

For federally funded mass transit projects, the FTA standards preempt County standards. The County of San Diego currently relies on the vibration standards listed in the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2006).

**U.S. Office of Surface Mining Reclamation and Enforcement**

The U.S. Office of Surface Mining Reclamation and Enforcement (OSM) has established guidelines related to blasting for surface mining activities. The OSM guidelines requires the operator to distribute a blasting schedule, post blasting signs, and control access within the blasting area. OSM has established air blast and ground vibration limits at the location of any dwelling, public building, school, church, or community building outside the permit area. The standard PPV damage threshold for residential structures is 2.0 inches per second. This requirement is based on the findings and recommendations of several reports made by the former U.S. Bureau of Mines.

### *2.11.2.2 State*

**California Noise Control Act of 1973**

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to

provide an environment for all Californians free from noise that jeopardizes their health or welfare.

**California Noise Insulation Standards (CCR Title 24)**

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of at least 45 dBA [California's Title 24 Noise Standards, Chap. 2-35].

**California Airport Noise Standards (CCR, Title 21, Section 5000 et. Seq.)**

The 1990 California Airport Noise Standards are designed to cause the airport proprietor, aircraft operator, local governments, pilots, and the Department of Transportation's Division of Aeronautics to work cooperatively to diminish noise. The regulations accomplish these ends by controlling and reducing noise in the communities in the vicinity of airports. The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a CNEL value of 65 dBA. The limitations on airport noise in residential communities are established to be:

a. The criterion CNEL is 65 dBA for proposed new airports and for active military airports being converted to civilian use.
b. The criterion CNEL for existing civilian airports is 65 dBA.

**California Airport Land Use Planning Handbook**

The California Airport Land Use Planning Handbook provides guidance for the assessment of noise compatibility of land uses near airports. Guidance is based on existing federal and State regulations and policies. The handbook states that 65 dBA is the basic limit of acceptable noise exposure for residential and other noise sensitive land uses and recommends an annual CNEL standard of 60 dBA to be used for new residential development; however, this standard has been set with respect to relatively noisy urban areas and may be too high of a noise level to be appropriate as a standard for land use compatibility planning. The level of noise deemed acceptable in one community is not necessarily the same in another. A noise level above 60 dBA CNEL may be considered incompatible with some residential uses. According to the handbook, noise compatibility standards typically place primary emphasis on residential areas because residential development is one of the most noise sensitive land uses and usually covers the greatest proportion of urban land. Three CNELs are commonly used as the limit for acceptable residential noise exposure: CNEL 65 dBA, 60 dBA, or 55 dBA. The conditions in which each CNEL would be the suggested noise standard are listed in Table 2.11-7. The handbook also includes normalization factors as a method for adjusting aircraft noise levels used for determining and predicting community reactions. These factors are listed in Table 2.11-8. Because the acceptable residential noise level standard may vary between

communities, noise compatibility issues are addressed in the Airport Land Use Compatibility Plans (ALUCPs) prepared for individual airports.

**Streets and Highways Code**

This regulatory code establishes noise level criteria for traffic and the effect on the interior of neighboring schools, libraries, and multi-purpose rooms produced by the traffic on State freeways. If the noise level generated by freeway traffic exceeds the standard of 50 dBA, the California Department of Public Works Division of Highways is given certain responsibilities for noise abatement in the affected rooms. This code also requires a report on the selection of the location for a State highway in which noise is a required consideration.

**California Vehicle Code (Sections 27200-27207)**

The California Vehicle Code sets noise emission standards for new vehicles, including autos, trucks, motorcycles and off-road vehicles. This Code requires that the Department of Motor Vehicles not register a dealer's report of sale for a new vehicle which produces a maximum noise exceeding the applicable noise limit at a distance of 50 feet from the centerline of travel under test procedures. This Code does not apply to off-road highway motor vehicle, Noise limits apply to motor vehicles according to weight and date of manufacture. Noise limits range from 88 dBA to 80 dBA.

**California Harbors and Navigation Code**

Section 654.05 of this code regulates that owners of a motorized recreational vessel shall not operate their vessel in a manner that exceeds the stated noise levels. For recreational vessels manufactured before 1993, the noise level limit is 90 dBA while vessels after 1993 are subject to noise level limits of 88 dBA.

**California Streets and Highway Code (Sections 215.5-216-5)**

The California Street and Highway Code, Section 215.5, establishes requirements that departments develop and implement a system of priorities for ranking the need for installation of noise attenuation barriers along freeway in the California freeway and expressway system. In establishing a priority system, the department shall give the highest consideration to residential areas which were developed prior to the opening of the freeway. This Code requires the preparing of an annual priority list for noise attenuation barriers, pursuant to criteria listed in this Code. Section 216 of the Streets and Highways Code regulates traffic noise not to exceed 52 dBA Leq inside schools near freeways.

### *2.11.2.3 Local*

**Airport Land Use Compatibility Plans (ALUCPs)**

ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property and aircraft on the ground and in the air in the vicinity of an airport. ALUCPs are based on a defined area around an airport known as the Airport Influence Area (AIA). ALUCPs include policies that address noise compatibility issues associated with airports

and their respective AIAs. In December 2006, the San Diego County Regional Airport Authority adopted new ALUCPs for six rural airports operated by the County (Agua Caliente, Borrego Valley, Fallbrook, Jacumba, Ocotillo, and Ramona).

**Proposed County of San Diego General Plan Update, Noise Element**

The proposed General Plan Update Noise Element establishes noise and land use compatibility standards and outlines goals and policies to achieve these standards. The proposed Noise Element characterizes the noise environment in the County of San Diego and provides the context for the County's noise/land use compatibility guidelines and standards. The proposed Noise Element also describes the County's goals for achieving the standards and introduces policies designed to implement the goals.

Under implementation of the proposed General Plan Update, the County would use the Noise Compatibility Guidelines listed in Table 2.11-9 to determine the compatibility of land uses when evaluating proposed development projects. The proposed Noise Compatibility Guidelines indicate ranges of compatibility and are intended to be flexible enough to apply to a range of projects and environments. For example, a commercial project would be evaluated differently than a residential project in a rural area or a mixed-use project in a more densely developed area of the County. If adopted, the Noise Compatibility Guidelines proposed in the County General Plan Update Noise Element would replace the noise policies and standards currently used in the existing County General Plan, which are more general in nature.

A land use located in an area identified as "Acceptable" indicates that standard construction methods would attenuate exterior noise to an acceptable indoor noise level and that people can carry out outdoor activities with minimal noise interference. Land uses that fall into the "conditionally acceptable" noise environment should have an acoustical study that considers the type of noise source, the sensitivity of the noise receptor, and the degree to which the noise source has the potential to interfere with sleep, speech, or other activities characteristic of the land use. For land uses indicated as "conditionally acceptable," structures must be able to attenuate the exterior noise to the indoor noise level as indicated in the Noise Standards listed in Table 2.11-10. For land uses where the exterior noise levels fall within the "unacceptable" range, new construction generally should not be undertaken.

**San Diego County Code of Regulatory Ordinances. Title 3. Division 6. Chapter 4, Sections 36.401-36.435, Noise Ordinance**

The Noise Ordinance establishes prohibitions for disturbing, excessive, or offensive noise, and provisions such as sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet for its citizens. Planned compliance with sound level limits and other specific parts of the ordinance allows presumption that the noise is not disturbing, excessive, or offensive. Limits are specified depending on the zoning placed on a property (e.g., varying densities and intensities of residential, industrial and commercial zones). Where two adjacent properties have different zones, the sound level limit at a location on a boundary between two properties is the arithmetic mean of the respective limits for the two zones, except for extractive industries. The one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located. It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property on which the

sound is produced. Table 2.11-11 shows the allowable noise levels and corresponding times of day for each zoning designation. Furthermore, the Noise Ordinance allows the County to grant variances for specific situations involving temporary on-site noise sources, subject to terms and conditions intended to achieve compliance or at least to reduce potential noise effects from the proposed activities. Section 36.423 of the Noise Ordinance allows the County to grant variances from the noise limitations for temporary on-site noise sources, subject to terms and conditions intended to achieve compliance. Finally, Sections 36.408 through 36.411 of the Noise Ordinance establishes additional noise limitations for operation of construction equipment.

**San Diego County Code of Regulatory Ordinances, Title 6, Division 3, Chapter 4, Sections 63.401-63.402, Agricultural Enterprise and Consumer Information Ordinance**

This ordinance is used to define and limit the circumstances under which an agricultural enterprise is considered a nuisance. The ordinance establishes a procedure whereby prospective purchasers of property are notified of the inherent potential conditions associated with agricultural operations found throughout the unincorporated area. These conditions include, but are not limited to, noise, odors, dust, insects, rodents, and chemicals. In 2003, the ordinance was amended to require that all sales of real property within the unincorporated area of the County receive a notice in writing that discloses that: "Occupants of the property to be purchased may be exposed to inconveniences, irritations or discomforts arising from agricultural use, including but not limited to noise, odors, fumes, dust, smoke, insects, rodents, the operation of machinery of any kind (including aircraft) during any 24 hour period, the storage and disposal of manure, and the application by spraying or other means of agricultural chemicals, such as pesticides and fertilizers."

## 2.11.3 Analysis of Project Impacts and Determination of Significance

### *2.11.3.1 Issue 1: Excessive Noise Levels*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and County of San Diego Guidelines for Determining Significance, Noise, the proposed County General Plan Update would have a significant impact if it would result in the exposure of any existing or reasonably foreseeable future noise sensitive land uses to exterior or interior noise, including existing and planned Mobility Element roadways, railroads, and all other noise sources (with the exception of airports, which are discussed in Sections 2.11.3.5 and 2.11.3.6), in excess of any of the following:

a. Exterior Locations:

- Roadways and all other noise sources: 60 or 65 dBA (CNEL) in the Noise Compatibility Guidelines as identified in Table 2.11-9 or an increase of 10 dBA (CNEL) over pre-existing noise in areas where the ambient noise level is 49 dBA (CNEL) or less.
- Railroads: 60 dBA (CNEL) or an increase of 10 dBA (CNEL) over pre-existing noise in areas where the ambient noise level is 49 dBA (CNEL) or less.

b. Interior Locations
   - 45 dBA (CNEL)

**Impact Analysis**

As described in Section 2.11.1.1, noise sensitive land uses are uses where an excessive amount of noise would interfere with normal operations or activities and where a high degree of noise control would be necessary. The Noise Compatibility Guidelines in Table 2.11-9 establish the noise levels that are acceptable for the proposed land uses under the General Plan Update, based on the noise sensitivity of the land use. The proposed General Plan Update would result in a significant impact associated with excessive noise levels if development consistent with the General Plan Update would be exposed to noise levels in excess of the Noise Compatibility Guidelines.

Noise contours for major transportation sources in the County of San Diego have been generated for future build out of roadways and development under the General Plan Update. Roadway systems are the most predominant source of noise exposure in the County, followed by airport noise (discussed below in Section 2.11.3.5) and rail operations. Development naturally occurs in proximity to roadways and railroad corridors including the Sprinter line. Additionally, roadways and railroad corridors are constructed in or adjacent to the population centers that it serves. Existing development in the unincorporated County includes areas of noise sensitive land uses adjacent to noise sources such as commercial and residential development along I-15 or the Sprinter Line. However, the proposed General Plan Update would require future development to be consistent with the proposed Noise Compatibility Guidelines identified in Table 2.11-9.

The noise contours provide an initial estimate of sound levels from identified sources that combine the hourly Leq representing the A-weighted human response with the time of day sensitivity to noise exposure represented by penalties in a 24-hour weighted average (with an exception for aircraft flight operations that use an annual exposure estimate). The use of capacity for the freeway CNEL estimates was a conservative approach equivalent to using the median ADT expected from all freeway segments. Noise contours shown on Figure 2.11-3 present a worst-case scenario of the maximum noise level in which no structures, sound walls, or other barriers intervene between the source and receiver which could attenuate noise; therefore, measured hourly noise levels and the resulting CNEL estimate reflect site-specific conditions and have the potential to be considerably lower than the contours provided in Figure 2.11-3. For example, the community noise survey, described above in Section 2.11.1.2, conducted for the Noise Technical Report, measured a CNEL of 66 dBA at 220 feet from I-15 between Pala Road and Lilac Road, at an elevation approximately 25 feet lower than the freeway elevation (PBS&J 2009). The existing noise contour shown in Figure 2.11-2 for this location is 75 dBA (CNEL), which is higher than the measured noise level due to the elevation difference between the freeway and the receptor. A more exposed site next to a freeway has the potential to be subject to higher noise levels. However, the purpose of the noise contour map is to identify areas where noise has the potential to be a concern. While the actual noise level in certain areas has the potential to be lower than the levels shown on the noise contour map, the noise contours represent a worst-case scenario in order to identify potential noise impacts of the General Plan Update.

**Roadway Noise**

The proposed General Plan Update roadway network represents anticipated 2030 conditions in the unincorporated County. The map shows several proposed new roadways and roadway extensions that would be constructed in the future to serve the build out of land uses in the County. The timing of proposed new roadways and roadway extensions is unknown at this time and would depend on the need for the roadways to ease traffic congestion as development occurs. Noise contours have been generated from estimated traffic levels on these roadways; however, the contours would only apply if the roadway were constructed.

The contour maps identify 55 dBA (CNEL), 60 dBA (CNEL), 65 dBA (CNEL), 70 dBA (CNEL), and 75 dBA (CNEL) noise contours. Table 2.11-9 identifies the land uses that would be acceptable within each contour. As shown in this table, the 55 dBA (CNEL) noise contour would be acceptable for all proposed land uses. According to the General Plan Update Noise Element, single family residential use, or semi-rural or rural residential development, would not be compatible with noise levels greater that 60 dBA (CNEL); therefore, the 60 dBA (CNEL) noise contour is the appropriate noise contour for the analysis of impacts to proposed single-family residential land uses. Village residential, village core mixed-use, and public semi/public facilities land uses and open space designated for conservation would be compatible with noise levels up to 65 dBA (CNEL) and conditionally acceptable up to 75 dBA. Recreational open space, office professional, commercial, and industrial land uses would be compatible with noise levels up to 70 dBA and conditionally acceptable up to 75 dBA. Only certain industrial land uses would potentially be compatible with noise levels beyond 75 dBA CNEL. For the purposes of this analysis, limited- and medium-impact industrial land uses are considered to be compatible with noise levels up to 70 dBA (CNEL), and heavy-impact industrial land uses would be compatible with noise levels up to 75 dBA (CNEL). As noted in Table 2.11-9, land uses that are only in use during the day, such as public facilities and offices, would typically use an hourly standard to determine noise compatibility. Therefore, the weighted CNEL contours represent a conservative estimate of impacts to these land uses.

As seen on the contour map in Figure 2.11-3, the areas near freeways and major arterials have the potential to be exposed to excessive noise levels. Table 2.11-12 provides the acreages of land uses by planning area that would be accommodated within each roadway noise level contour that exceeds the noise compatibility guidelines based on the categories listed in Table 2.11-9. Based on this table, in 2030 the General Plan Update would accommodate development of 74,692 acres of land uses that exceed the noise level deemed as “Acceptable” in the noise compatibility guidelines. This total is a conservative estimate because it includes both existing and future development, and it does not take into account any noise attenuation that may have been incorporated into the existing development to reduce exterior noise levels to an acceptable level. The contour with the greatest amount of potential impacts is the 60 dBA (CNEL) contour because this contour encompasses the largest area. The 75 dBA (CNEL) is the contour with the fewest potential impacts because this contour encompasses only land very close to the roadways. Specific land use designations within each CPA are identified in Appendix C of the Noise Technical Report, included as Appendix F.

The planning area with the greatest amount of acreage within the 60 dBA (CNEL) and 65 dBA (CNEL) roadway contours is the Mountain Empire Subregion, which is traversed by I-8. Other planning areas along I-8 that would accommodate land uses that have the potential to be exposed to noise levels exceeding noise compatibility guidelines within the 60 dBA (CNEL) and 65 dBA (CNEL) contours are the Alpine CPA, Central Mountain Subregion, and Lakeside CPA.

Several planning areas along I-15 would accommodate a relatively large amount of land uses with the potential to be exposed to noise levels exceeding noise compatibility guidelines within the 60 dBA (CNEL) or 65 dBA (CNEL) contours, including Bonsall CPA, Fallbrook CPA, North County Metro Subregion, and Valley Center CPA. The area with the greatest amount of acreage in the 70 dBA (CNEL) is the Pendleton/De Luz CPA because Marine Corps Base Camp Pendleton is traversed by I-5. However, the General Plan Update does not propose land uses in this area. Lakeside CPA would accommodate the greatest acreage of land uses within both the 70 dBA (CNEL) and 75 dBA (CNEL) contours with the potential to be exposed to noise levels in excess of noise compatibility guidelines.

As noted earlier, the land uses in these contours with the potential to be exposed to noise levels exceeding the noise compatibility guidelines include both existing and potential future development. Many existing developed properties are located within the roadway noise contours and adjacent to freeways (I-8, I-15) and State roads (SR-54, SR-67, SR-76, SR-94) in the unincorporated County. These noise sensitive land uses and other non-sensitive land uses within the roadway noise contours are currently exposed to noise levels exceeding County noise standards (existing ambient noise level). While most of these areas are completely built out with existing development, the opportunity for infill and redevelopment projects would not be precluded. For example, under the General Plan Update, growth would be concentrated in the western portion of the unincorporated County. Many of these communities are served by I-15, including the Bonsall, Fallbrook, and Valley Center CPAs, and have the potential to be exposed to traffic noise from I-15. Additionally, in the eastern regions of the County, future development under the General Plan Update would generally be accommodated along the I-8 corridor. Though development in this corridor is proposed at a low level of intensity, especially east of the Alpine CPA, it also presents the greatest potential for incompatibility due its rural character and the limited uses allowed in the semi-rural and rural lands designations, which are predominantly noise sensitive land uses. Therefore, new noise sensitive land uses throughout the unincorporated County have the potential to be exposed to excessive noise from roadways.

To verify the noise levels estimated by the roadway contours, two 24-hour noise measurements were taken along major roadways as part of the community noise survey. One was taken along I-15, a major freeway in the unincorporated County, and the second was taken along Wildcat Canyon Road, an access road for a casino. As shown in Table 2.11-6, the noise measurement resulted in a CNEL along the I-15 freeway of 66 dBA and a CNEL near the casino of 73 dBA. Both roadways exceed the 60 dBA (CNEL) exterior noise standard. Additionally, these noise levels were generally constant over the 24-hour period. Noise sensitive land uses in close proximity to I-15 and the casino access road have the potential to be exposed to noise levels that exceed 60 dBA during both day and nighttime hours. Noise sensitive land uses have the potential to be more sensitive to noise during nighttime hours and, while the noise level is generally constant, have the potential to seem louder to noise sensitive land uses at night when the ambient noise level is lower. These measurements are representative of heavily traveled roadways in the unincorporated County. Therefore, noise sensitive land uses in the County have the potential to be exposed to excessive levels from major roadways such as freeways, highways, and arterials, or roadways that provide access to land uses that generate a constant flow of traffic, such as casinos. However, all roadways have the potential to exceed noise standards, depending on traffic conditions and the proximity of the roadway to noise sensitive land uses.

### Railroad Noise

Two railroads are located within the unincorporated San Diego County, the Sprinter Commuter Rail Line located near the North County Metro Subregion, and the SD&AE's Desert Line which is located in the southeastern portion of the County. Table 2.11-13 provides the acreages of potential noise sensitive land uses that would occur within the 60 dBA (CNEL) contour of railroads. This includes both the Sprinter light rail line and the SD&AE's Desert Line, a freight line. As mentioned previously, Ldn and CNEL are essentially equivalent noise metrics; there is generally less than a two decibel difference between the two levels. As described above, some land uses typically considered noise sensitive land uses have the potential to be compatible with noise levels greater than 60 dBA under the Noise Compatibility Guidelines in Table 2.11-9. However, only the 60 dBA noise contours have been established for the railroads in the unincorporated County. Therefore, this analysis is a conservative estimate of potential noise sensitive land uses that would be exposed to excessive noise from railroads.

As shown in Table 2.11-13, in 2030 the General Plan Update designates approximately 1,614 acres of noise sensitive land uses in areas exceeding the 60 Ldn railroad noise contour. Specific land use designations within each CPA are included in Appendix C of the Noise Technical Report, included as Appendix F to this EIR. Noise sensitive land uses within the 60 Ldn railroad contour are only located in the Mountain Empire and the North County Metro Subregions. A large segment of the SD&AE's Desert Line traverses the Mountain Empire Subregion, while the Sprinter line serves only a small portion of North County Metro Subregion. As a result, 97 percent of the acreage of noise sensitive land uses located within the 60 Ldn contour are located in the Mountain Empire Subregion (1,561 acres), compared to 53 acres in the North County Metro Subregion. The Mountain Empire Subregion is relatively undeveloped along the SD&AE Desert Line. This area has the potential for new development under the General Plan Update that would result in the exposure of noise sensitive land uses to excessive noise levels from the SD&AE Desert Line. The Desert Line is currently not in use and no date for reopening the line has been established. Potentially significant impacts associated with the Desert Line would only occur if this line resumes operation. The General Plan Update would accommodate new development in the proximity of the Buena Creek Sprinter Station in the North County Metro Subregion. This area is currently developed with single family residences and low intensity commercial uses; however, the General Plan Update designates this area for higher intensity commercial and residential uses. Redevelopment or infill development consistent with the General Plan Update would result in new noise sensitive land uses exposed to noise from operation of the Sprinter.

### Federal, State, and Local Regulations and Existing Regulatory Processes

Future development under the General Plan Update would be required to comply with CCR Title 24, which establishes standards for interior room noise. The regulations require an acoustical study to be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dBA or greater. Additionally, future development would be required to comply with the Noise Compatibility Guidelines and General Plan Update Noise Element Noise Standards listed in Tables 2.11-9 and 2.11-10, and the County of San Diego Noise Ordinance. These regulations establish sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet. Additionally, future discretionary projects proposed under the General Plan Update would be required to comply

with CEQA, which requires that projects identify any potential noise impacts. Mitigation measures such as double-paned windows would be required for any significant impacts.

**Proposed General Plan Update Goals and Policies**

The Noise Element contains several goals and policies that would reduce potential noise impacts to noise sensitive land uses. Goal N-2 is to achieve a noise environment that minimizes exposure of noise sensitive land uses to excessive noise levels. This goal is supported by Policy N-2.1, which requires preparation of an acoustical study where development has the potential to directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 dBA (CNEL), and Policy N-2.2, which requires a solid noise barrier be incorporated into development design when the exterior noise level on patios or balconies for multi-family residences or mixed-use developments exceeds a CNEL of 65 dBA. Goal N-4 is to achieve a noise environment that reduces noise generated from traffic, railroads, and airports to the extent feasible. This goal is supported by Policies N-4.1, N-4.2, N-4.5, N-4.7, and N-4.8. These policies do the following: ensure that increases in average daily traffic do not substantially increase cumulative traffic noise to noise sensitive land uses; include traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise; promote the location of new or expanded roads where the impact to noise sensitive land uses would be minimized; require coordination with other agencies to minimize impacts to noise sensitive land uses from railroad operations; and promote establishment of train horn "quiet zones" and promote community programs for existing crossings by working with rail operators. Additionally, the Land Use Element includes Policy LU-2.8 that requires measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise. The Mobility Element includes Policies M-1.3 and M-2.4 that would avoid bisecting communities or town centers, consider lower design speeds in areas planned for substantial development to reduce noise impacts, and incorporate buffers or other noise reduction measures into the siting and design of roads located next to sensitive noise receptors.

**Summary**

Future development under the General Plan Update near roadways or railroads would have the potential to expose noise sensitive land uses to excessive noise levels. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize excessive noise, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with minimize excessive noise and specific implementation programs are identified as mitigation.

### *2.11.3.2 Issue 2: Excessive Groundborne Vibration*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and County of San Diego Guidelines for Determining Significance, Noise, the proposed County General Plan Update would have a significant impact if it would result in the exposure of vibration sensitive uses to ground-borne vibration and noise equal to or in excess of the levels shown in Table 2.11-14, Groundborne Vibration and Noise Standards, or if new sensitive land uses would be located in the vicinity of

ground-borne vibration inducing land uses such as railroads or mining operations. The groundborne vibration and noise standards identify the following three land use categories with increasing sensitivity to groundborne vibration and noise impacts:

a. Category 1: Buildings where low ambient vibration is essential for interior operations (research & manufacturing facilities with special vibration constraints)
b. Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, & other sleeping facilities)
c. Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, & quiet offices)

The proposed project would result in a significant impact if frequent events would exceed 0.0018 in/sec RMS for Category 1 land uses, 0.004 in/sec RMS for Category 2, and 0.0056 in/sec RMS for Category 3. Occasional or infrequent events (fewer than 70 vibration events per day) would be considered a significant impact if they would exceed 0.0018 in/sec RMS for Category 1 land uses, 0.010 in/sec RMS for Category 2, and 0.014 in/sec RMS for Category 3.

## Impact Analysis

Sources of groundborne vibration exist in the County that cause groundborne vibration. Additionally, groundborne vibration has the potential to occur as a result of new land use development accommodated by the General Plan Update. Potential sources of groundborne vibration include construction, railroads, and extractive mining operations. These sources are discussed further below.

### Construction

As shown in Table 2.11-15, construction typically results in ground-borne vibration in that ranges from 0.003 to 0.01 in/sec RMS at a distance of 50 feet from the source. With respect to Table 2.11-14, it is more likely that heavy equipment operations may produce vibration impact levels exceeding the threshold of Category 1 land uses than the higher thresholds of Categories 2 and 3 land uses and because of separation distance, event frequency, and other site-specific conditions. Category 1 land uses include research and manufacturing facilities for products with high tolerances required in their design and fabrication. For isolated and infrequent events such as blasting, impacts have the potential to result in a PPV that exceeds 1.0 in/sec RMS, which would exceed groundborne vibration standards for all three land use categories. Other vibration sources from construction such as pile drivers or hydraulic breakers have the potential to exceed 0.1 in/sec RMS. These sources would also have the potential to exceed vibration standards for all three land use categories. Therefore, typical construction activities have the potential to exceed vibration standards and expose vibration sensitive land uses to excessive groundborne vibration.

The General Plan Update does not propose specific development projects; therefore, it is not possible to determine exact vibration levels associated with construction of future development under the General Plan Update. However, the majority of new development planned within the General Plan Update, approximately 80 percent, is located within the SDCWA boundary in the western region of the unincorporated County. Therefore, this area is more likely to be affected by ground-borne vibration and noise from construction as a result of development consistent with the General Plan Update. Specifically, the Bonsall CPA would accommodate the

development of 2,080 new housing units under the General Plan Update, particularly in the northern part of the CPA, which is a 54.2 percent increase in residential units compared to 2008 conditions. Commercial and residential growth is also anticipated in Fallbrook CPA along the I-15 corridor and within the town center. Intensification of residential and commercial uses is designated within the Lakeside CPA town center and along major thoroughfares. In the North County Metro Subregion, land use designations would have the potential to result in new commercial and residential development in the proximity of the Buena Creek Sprinter Station. Intensified development in the town centers of Rainbow CPA, Ramona CPA, San Dieguito CPA, and Valley Center CPA would also be anticipated. In the Sweetwater CPA, new residential development would be accommodated along the southeastern boundary of the CPA.

New growth could also be accommodated in areas of the eastern portion of the unincorporated County. The General Plan Update would accommodate intensified development within the town centers of the Alpine CPA, Central Mountain Subregion, Crest/Dehesa Subregion, Julian CPA, and Mountain Empire Subregion. New semi-rural residential and village residential growth would be accommodated in the Borrego Springs area of the Desert Subregion, resulting in an approximately 90 percent increase in housing units in this subregion. Growth of commercial and industrial uses in the Tecate planning area of the Mountain Empire Subregion would likely occur due to its proximity to Tecate, Mexico. Therefore, in all areas of the unincorporated County, new development could require infrastructure that would also have the potential to result in substantial construction groundborne vibration and noise.

**Railroads**

As discussed above, two railroads are located within the unincorporated San Diego County, the Sprinter Commuter Rail Line and the SD&AE's Desert Line. As shown in Table 2.11-15, typical vibration levels for commuter rail operations can range from 0.0003 to 0.003 in/sec VMS at a distance of 50 feet from the source. At this distance, vibration levels would not exceed the significance threshold for Category 2 and 3 land uses, but have the potential to exceed the significance threshold for Category 1 land uses such as industrial manufacturing facilities, which are the most vibration-sensitive. However, as described above in Section 2.11.1.2, the Desert Line is currently not in use and no date for reopening has been established. Additionally, should the line resume operations, vibration impacts would be less than significant due to the infrequency of operations that would occur on the freight rail line.

Under the General Plan Update, new commercial and residential development would be accommodated within the North County Metro Subregion near the Buena Creek Sprinter Station and along the Sprinter corridor. This development would have the potential to be exposed to vibration impacts from operation of the Sprinter trains. The FTA provides screening distances for land use designations to screen projects that have the potential to be subject to vibration impacts from a commuter railroad. For Category 1 land uses (vibration-sensitive equipment), the screening distance from the railroad right-of-way to the property line is 600 feet. For Category 2 land uses, the screening distance is 200 feet. The screening distance for Category 3 land uses is 120 feet. New development that is proposed within the screening distance of the Sprinter Rail corridor would require further project-specific analysis to determine potential vibration-related impacts.

### Extraction (Mining) Operations

Mining and extraction operations often include blasting or other activities that result in ground-borne vibration or noise impacts. The majority of extractive sites, as well the areas where mineral resources are most likely present, are concentrated in the western portion of the unincorporated County, where development would be concentrated under the General Plan Update. Equipment used for extraction operations would have similar vibration levels associated with blasting and use heavy equipment as those used for construction projects, identified in Table 2.11-15. Therefore, vibration levels from mining equipment could potentially range between 0.003 – 0.01 in/sec RMS at a distance of 50 feet from the source. Therefore, frequent vibration occurrences would have the potential to exceed the threshold for Category 1 land uses (0.0018 in/sec RMS), but have the potential to not exceed the significance threshold for Categories 2 and 3 (0.004 in/sec RMS and 0.0056 in/sec RMS, respectively). Additionally, infrequent events such as blasting have the potential to exceed 1.0 in/sec RMS, and the use of impact pile drivers or hydraulic breakers has the potential to exceed 0.1 in/sec. Therefore, infrequent events have the potential to exceed the thresholds for all three vibration sensitive land use categories.

The OSM has established guidelines related to blasting for surface mining activities, which have the potential to reduce groundborne vibration impacts. The OSM guidelines requires the operator to distribute a blasting schedule, post blasting signs, and control access within the blasting area. OSM has established air blast and ground vibration limits at the location of any dwelling, public building, school, church, or community building outside the permit area. The standard PPV damage threshold for residential structures is 2.0 in/sec. As described above, blasting events have the greatest potential to result in vibration impacts. Blasting has the potential to exceed 1.0 in/sec RMS, but would not typically result in vibration of 2.0 in/sec to off-site land uses. Extraction operations would be required to comply with OSM guidelines. Therefore, damage to residential structures from groundborne vibration would not occur under the General Plan Update.

### Federal, State, and Local Regulations and Existing Regulatory Processes

Future development under the proposed project would be required to comply with FTA and Federal Railroad Administration guidelines, which establish vibration standards for the construction of new vibration sensitive land uses and the placement of new vibration sources such as railroads. The FTA guidelines also identify standards for construction vibrations and establish mitigation for construction vibration impacts. Additionally, future projects under the General Plan Update that have the potential for incurring ground-borne vibration and noise impacts would be required to comply with CEQA, which requires proposed projects to identify any potential impacts associated with groundborne vibration and noise. As part the of CEQA process, the County would require projects with the potential to result in vibration impacts to conduct a Noise Impact Analysis report consistent with the County of San Diego Report Format and Content Requirements to determine if impacts would be significant. Mitigation measures would be required for any significant impacts.

### Proposed General Plan Update Goals and Policies

The General Plan Update Noise Element includes goals and policies that would reduce impacts ground-borne vibration and noise. Goal N-3 is to achieve an environment that minimizes exposure of sensitive land uses to harmful effects of excessive groundborne vibration. This

goal is supported by Policy N-3.1, which would require the use of FTA and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses have the potential to have to groundborne vibration from trains, construction equipment, and other sources. In addition, Policy N-4.7 would require the County to work with SANDAG, Metropolitan Transit Services (MTS), and passenger and freight rail operators, as appropriate, to minimize impacts to residential and other sensitive land uses. Policy N-5.2 would locate industrial facilities in areas that would minimize impacts to sensitive land uses. Additionally, Goal N-6 is to minimize effects of intermittent, short-term, or other nuisance noise sources to noise sensitive land uses. This goal is supported by Policies N-6.3 and N-6.4. These policies require development to limit the frequency of use of high-noise equipment if their activity will result in noise that affects residential zones and also require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

**Summary**

Construction of new land uses under the General Plan Update and placement of new development in close proximity to existing railroads or extraction operations would have the potential to result in impacts associated with excessive groundborne vibration. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize excessive groundborne vibration, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with excessive groundborne vibration and specific implementation programs are identified as mitigation.

### *2.11.3.3 Issue 3: Permanent Increase in Ambient Noise Levels*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Noise, the proposed County General Plan Update would have a significant impact if it would result in a substantial permanent increase in ambient noise which would exceed the sound level limits specified in San Diego County Code Section 36.404, Sound Level Limits, at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise. The sound level standards in Section 36.404 are provided in Table 2.11-11.

If the measured ambient level exceeds the applicable limit noted in Table 2.11-11 due to a specific noise violation source, the allowable one hour average sound level would be the one-hour average ambient sound level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. The one-hour average sound level limit applicable to extractive industries, including borrow pits and mines, shall be 75 decibels at the property line regardless of the zone where the extractive industry is located. Proposed extractive facilities would be subject to the noise standards within the Noise Element at the proposed site and adjacent uses. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the sound level limits identified in this section, measured at or

beyond six feet from the boundary of the easement upon which the equipment is located. However, some uses are exempt from the Noise Ordinance. Exemptions are listed in Section 36.417 and apply to certain instances of emergency work, school activities, public events, emergency generators, agricultural operations, and property maintenance. Additionally, existing extractive operations are not restricted by the zonal standards in Section 36.404 because of Section 36.404(e). Section 36.404 (e) of the Noise Ordinance defines the sound limit level at a location on a boundary between two zones as the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, is defined as 75 decibels at the property line regardless of the zone in which the extractive industry is located.

Permanent traffic noise impacts would be significant if the General Plan Update would raise the noise levels above the County of San Diego Guidelines for Determining Significance of 60 dBA (CNEL). In areas where the existing noise level without the project is above 60 dBA but below 65 dBA, the proposed project would result in a significant impact if it would result in an increase of more than three decibels, in accordance with the Federal Transit Administration noise impact criteria. Where the existing noise exposure is between 65 dBA and 70 dBA, a significant impact would occur if the proposed project would exceed the existing noise level by more than one decibel. Where the existing noise exposure exceeds 70 dBA, any increase in the noise level would be considered significant.

## Impact Analysis

Future development and expansion of infrastructure in the unincorporated County consistent with the General Plan Update would have the potential to substantially increase ambient noise levels above existing conditions. Provision of new infrastructure to accommodate planned growth, especially the new roads and road improvements in the Mobility Element, would have the potential to increase traffic noise above existing conditions. Operation noise from industrial, agricultural or other noise-generating uses would have the potential to result in permanent increases in the ambient noise environment that would have the potential to affect surrounding land uses.

### Roadways

As part of the proposed General Plan Update, the Mobility Element would include changes to the classifications of roadways within the unincorporated County. In most instances, the classification changes for roadways would allow for increased roadway capacity which would result in increased noise levels from the additional vehicles on the roadways. Table 2.11-16 compares roadway classifications for existing conditions and build out of the proposed general plan (2030 conditions) and identifies the roadway segments that would result in an increase in traffic noise levels. The list in Table 2.11-16 does not include every roadway segment that would have the potential to result in an increase in noise levels; however, it identifies general areas that would experience an increase in noise level of 3 dBA or greater as compared to existing conditions.

The majority of roadway segments that would experience an increase in noise levels would be upgraded from a Collector classification to a Major Arterial. Collector roadways are two-lane roads that serve low volumes of traffic within communities. Major arterials are four-lane roads that serve medium to high volumes of traffic traveling within and between communities. This type of upgrade would result in an increase in the noise level from a CNEL of 64 dBA under the

Collector classification to a CNEL of 71 dBA under the Major Arterial classification at 100 feet from the roadway centerline. Examples of this increase in noise level would occur on Mission Road from Green Canyon Road to Triple Crown, Mountain Meadow Road from I-15 to North Broadway, and Dehesa Road from Granite Hills Road to Sycuan Casino, as listed in Table 2.11-16. The increases in roadway noise would generally occur west of the SDCWA boundary in the areas where the General Plan Update proposes the intensification of land uses, and therefore would require an increase in roadway capacity. In some cases, roadway classifications are upgraded from a Collector to a Prime Arterial, resulting in an increase of approximately 13 dBA (CNEL). Prime arterials are six-lane roads that accommodate high speed, high volume traffic. Examples of this upgrade include Deer Springs Road (from Marilyn Road to I-15) and SR-67 (from Sycamore Road to Willow Road). The CPAs that would be most affected by roadway noise increases are the southwestern portion of Fallbrook CPA (near Mission Road), the central area of Bonsall CPA (near Gopher Canyon Road), the central area of Valley Center CPA, the Twin Oaks Valley area in the North County Metro Subregion, San Dieguito CPA, and the western area of the Ramona CPA. The western Lakeside CPA would be affected by the increase in capacity of SR-67 from Sycamore Road to Willow Street. Increases in noise levels along Dehesa Road, Campo Road, and Jamacha Road would affect the Crest/Dehesa Subregion, Valle de Oro CPA, and Spring Valley CPA. The increase in capacity of Otay Lakes Road would affect the Otay and Jamul/Dulzura Subregion.

Additionally, development of proposed new roadways or roadway extensions would result in increases in noise levels above existing conditions. An example of these roadways, as shown in Table 2.11-17, is the proposed Foothill Tollway in the northern area of the Pendleton/De Luz CPA. This roadway would result in a permanent increase in traffic noise level over existing conditions.

**Industrial, Agricultural, or other Noise-Generating Uses**

Industrial, agricultural, and other land uses often involve the use of machinery and other equipment that would have the potential to generate noise that exceeds noise standards. A potential noise impact would occur from the development of industrial land uses in areas that are relatively quiet or contain, or are designated for, noise sensitive land uses. Operation of an industrial facility can cause the exposure of on-site or off-site areas to increased noise associated with mechanical equipment (pumps, rooftop equipment, condenser units, air conditioning units, pneumatic equipment), operation-related traffic (vehicle movement, engine noise), speakers, bells, chimes, and outdoor human activity in defined limited areas.

Under the General Plan Update, industrial land uses would be accommodated in the Alpine CPA, Desert Subregion, Fallbrook CPA, Julian CPA, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, Ramona CPA, Spring Valley CPA, and Valley Center CPA. The most intensive industrial use designation, high impact industrial, is proposed under the General Plan Update in the Alpine CPA, Desert Subregion, Lakeside CPA, North County Metro Subregion, and Ramona CPA. Medium and low impact industrial land uses would be accommodated in all of the communities identified for high impact industrial, with the exception of the North County Metro Subregion. In the Alpine CPA, Fallbrook CPA, Julian CPA, and North County Metro Subregion, new industrial facilities would have the potential to result in a significant increase in ambient noise because the surrounding area is relatively undeveloped with semi-rural land uses. Additionally, land uses surrounding the areas designated for industrial land uses in these communities include residential land uses. If residential land uses

are constructed prior to industrial facilities, new industrial facilities would have the potential to result in a significant impact to the residential uses.

In the Desert Subregion, industrial land uses would be allowed in the Borrego Springs planning area under the General Plan Update. These land use designations reflect both existing industrial development and proposed new industrial facilities; therefore, the new facilities would likely be compatible with the existing noise environment of the industrial area. The same situation would occur in the Lakeside CPA, Mountain Empire Subregion, Ramona CPA, Spring Valley CPA, and Valley Center CPA.

Agricultural operations are another source of non-transportation noise in the unincorporated County. Major agricultural uses are currently located in the Bonsall CPA, Fallbrook CPA, Jamul/Dulzura Subregion, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Rainbow CPA, Ramona CPA, and Valley Center CPA. However, under implementation of the proposed General Plan Update, agricultural operations would be allowable within any land use designation. Therefore, new agricultural operations would have the potential to be located near residences or other noise sensitive land uses. Truck deliveries and operation of farming equipment such as tractors are the primary agricultural noise sources. As shown in Table 2.11-5, the community noise survey identified agricultural operations as having a noise level range of 44.4 through 68.3 dBA, which would have the potential to exceed the noise limit identified in Table 2.11-11 for residential or commercial land uses, but would not exceed the noise limit for industrial zones. However, under Section 36.417 of the Noise Ordinance, agricultural operations are generally exempt from the noise standards, provided that each piece of equipment and machinery powered by an internal-combustion engine is equipped with an appropriate muffler and air intake silencer in good working order and one of the following applies: operations do not take place between 7:00 p.m. and 7:00 a.m.; the operations and equipment are utilized for the preparation, planting, harvesting, protection or salvage of agricultural crops during adverse weather conditions; or the operations and equipment are used for agricultural pest control in accordance with regulations and procedures administered by the County Department of Agriculture. Therefore, agricultural operations would not result in a potentially significant impact to noise sensitive land uses, specifically residential and commercial land uses.

Extractive operations would also have the potential to exceed the noise limits established in the Noise Ordinance. The one-hour average sound level limit applicable for extractive industries is 75 decibels, regardless of the zone in which the extractive industry is located, as stated in Section 36.404(e) of the Noise Ordinance. Heavy equipment used in quarry and mining activities and blasting operations would have the potential to generate noise levels that would expose surrounding land uses to noise levels exceeding County noise standards. As shown in Table 2.11-3, equivalent sound levels (Leq) from certain types of extraction equipment can exceed 75 dBA at 50 feet from equipment. No new mining operations are specifically proposed as part of the General Plan Update. Any future extractive facilities would be subject to the noise standards within the Noise Element and Noise Ordinance at the proposed site and adjacent uses, which would reduce any potential noise impacts to noise sensitive land uses to a less an significant level.

Casinos have the potential to generate noise in the unincorporated County primarily due to increased traffic (vehicles and passenger buses) traveling along roadways to and from the gaming facilities. Casinos are currently located on the Viejas Reservation in the Alpine CPA;

Sycuan Reservation in the Crest/Dehesa Subregion; Pala, La Jolla, and Rincon Reservations in the Pala/Pauma Valley Subregion; San Pasqual Reservation in the Valley Center CPA; Campo and La Posta Reservations in the Mountain Empire Subregion; and Pauma-Yuima and Santa Ysabel Reservations in North Mountain Subregion. The short-term community noise survey measured a noise level of 66 dBA Leq at approximately 60 feet from the centerline of an access road to Sycuan Casino (Dehesa Road); however, it is recognized that casino traffic is not the only traffic using this road. A 24-hour noise measurement taken on an access road to Barona Casino measured a CNEL of 72.7 dBA along Wildcat Canyon Road (approximately 60 feet from the centerline of the road). Hourly Leq measurements were generally constant throughout the 24-hour period, though the noise level was lower in the early morning compared to rest of the period. The unweighted 24-hour Leq for the Barona Casino location was 67 dBA, which shows that the noise levels at both casinos were comparable. Access roads to casinos would have the potential to be adjacent to residences or other noise sensitive land uses, especially in planning areas that are currently densely developed or that would accommodate higher density development under the General Plan Update, such as the Alpine CPA and Valley Center CPA. Therefore, casino operations in the County would have the potential to exceed the exterior noise standards in Table 2.11-11 and result in a potentially significant impact.

Other noise-generating uses in the County include shooting ranges, landfills, and mixed use areas. The community noise survey measured an Leq of 74 dBA approximately 20 feet from a shooting range in Valle de Oro CPA, primarily from firearm noise, and an Leq of 73 dBA on the Ramona Landfill property in Ramona CPA, primarily due to bulldozers used for the operation of the landfill. Based on the measured noise levels, both shooting range and landfill land uses have the potential to exceed noise limits identified in Table 2.11-11 for residential (50 dBA), commercial (60 dBA), and industrial land uses (70 dBA).

Additionally, mixed-use development would be accommodated within several planning areas under the General Plan Update: Fallbrook CPA, San Dieguito CPA, and Valley Center CPA. The mixed-use land use designation would allow commercial, civic, and residential uses to be developed in close proximity to one another. While this land use designation is intended to create pedestrian-oriented areas that would reduce vehicular traffic and associated traffic noise, commercial land uses would have the potential to generate noise that exceeds noise limits for residences. The community noise survey identified a range in noise levels of 65 - 69 dBA for commercial uses, based on short-term 15-minute samples. Therefore, new commercial development in close proximity to residential uses would have the potential to exceed the exterior noise standard of 65 dBA identified in Table 2.11-11 for mixed-use land uses.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

Future development under the General Plan Update would be required to comply with the Noise Compatibility Guidelines and Noise Standards listed in Tables 2.11-7 and 2.11-8, from the proposed General Plan Update Noise Element, and the County of San Diego Noise Ordinance. The regulations establish sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet. In addition, future projects under the General Plan Update would be required to comply with CEQA, which requires project to identify any potential impacts associated with a permanent increase in ambient noise. Mitigation measures would be required for any significant impacts.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update Noise Element contains several policies that would reduce noise impacts from both roadways and non-transportation noise sources. Policies N-4.1, N-4.2, and N-4.6 support Goal N-4, which is to achieve a noise environment that reduces noise generated from traffic, railroads, and airports to the extent feasible. These policies are intended to reduce the potential for increases in average daily traffic to increase cumulative traffic noise to noise sensitive land uses; include traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise; and require proposed projects to be evaluated against ambient noise levels to determine whether the project would increase ambient noise levels by more than three decibels. Additionally, Goal N-5 is to achieve a noise environment that provides minimal noise spillovers from industrial, commercial, agricultural, extractive, and similar facilities to adjacent neighborhoods. This goal is supported by Policies N-5.1 and N-5.2, which require development to be designed so that automobile and truck access to industrial and commercial properties abutting residential properties is located at the maximum practical distance from residential zones, and encourage noise-generating industrial facilities to be located at the maximum practical distance from residential zones. Additionally, the Land Use Element includes Policy LU-2.8 that requires measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise. The Mobility Element includes Policies M-1.3 and M-2.4 that would design new high-volume roadways to avoid bisecting communities or town centers, consider narrower rights-of-way, promote flexibility in design standards, lower design speeds in areas planned for substantial development to reduce noise impacts, and incorporate buffers or other noise reduction measures into the siting and design of roads located next to sensitive noise receptors.

**Summary**

Traffic on new roadways or roadway improvements, as well as operation of new industrial facilities and other noise-generating uses under the General Plan Update would result in potentially significant permanent increases in ambient noise level. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize permanent increases to ambient noise, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with permanent increases to ambient noise and specific implementation programs are identified as mitigation.

### *2.11.3.4 Issue 4: Temporary Increase in Ambient Noise Levels*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Noise, the proposed County General Plan Update would have a significant impact if it would result in a substantial temporary or periodic increase in ambient noise levels during construction which, together with noise from all sources, would exceed the standards listed in San Diego County Code Sections 36.408 and 36.409, Construction Equipment. Sections 36.408 and 36.409 state that, except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

a. Between the hours of 7:00 p.m. and 7:00 a.m.

b. On a Sunday or a holiday. For the purposes of this section a holiday means January 1st, the last Monday in May, July 4th, the first Monday in September, December 25th and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10:00 a.m. and 5:00 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in Sections 36.409 and 36.410**.**

c. That exceeds an average sound level of 75 decibels for an eight hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

The County Noise Ordinance also includes standards for other sources of temporary and nuisance noise. Section 36.410, Sound Level Limitations on Impulsive Noise, states that except for emergency work, no person shall produce or cause to be produced an impulsive noise that exceeds the following standards when measured at the boundary line of or on any occupied property for 25 percent of the minutes in the measurement period:

- 82 dBA at an occupied residential, village zoning, or civic use, or 85 dBA at an occupied agricultural, commercial, or industrial use; or
- 85 dBA at an occupied residential, village zoning, or civic use, or 90 dBA at an occupied agricultural, commercial, or industrial use for a public road project.

The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute it will deemed that the maximum sound level was exceeded during that minute.

Section 36.413, Multiple Family Dwelling Units, states that, notwithstanding any other provisions of the Noise Ordinance, it shall be unlawful for any person to create, maintain or cause to be maintained any sound within the interior of any multiple family dwelling unit which causes the noises level to exceed 45 dBA between 10:00 p.m. and 7:00 a.m. and 55 dBA between 7:00 a.m. and 10:00 p.m. Additionally, it shall be unlawful for any person to generate an interior noise level to exceed 40 dBA for one minute in one hour or 35 dBA for five minutes in one hour between the hours of 10:00 p.m. and 7:00 a.m., or to exceed 50 dBA for one minute in one hour or 35 dBA for five minutes in one hour between the hours of 7:00 a.m. and 10:00 p.m.

Section 36.414, General Noise Regulations of the County of San Diego Noise Ordinance includes additional noise standards for disturbing, excessive or offensive noise. Generally, this section states that it shall be unlawful for any person to make, continue, or cause to be made or continued, any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area.

Section 36.416, Noise from Off-Road Recreational Vehicles, states that no person shall operate or allow the operation of an off-road recreational vehicle on private property that produces a noise when measured at the boundary line of or on any occupied property that at any time exceeds the following maximum sound levels: 82 decibels between the hours of 7:00 a.m. and 7:00 p.m., 77 decibels between the hours of 7:00 p.m. and 10:00 p.m., and 55 decibels between the hours of 10:00 p.m. and 7:00 a.m.

## Impact Analysis

The construction of future land uses and infrastructure in the unincorporated County consistent with the General Plan Update would have the potential to result in the exposure of on-site or off-site areas to noise in excess of the standards listed in San Diego County Code Sections 36.408 and 36.409 associated with project-related activities including, but not limited to, site grading, truck/construction equipment movement, engine noise, rock excavation, rock crushing, and blasting. Typical construction equipment noise levels are provided in Table 2.11-18.

As described in greater detail in Chapter 1.0, Project Description, the majority of new development that would occur under the General Plan Update, approximately 80 percent, is planned to occur within the SDCWA boundary in the western region of the unincorporated County. Therefore, this area is more likely to be affected by temporary increases in ambient noise from construction as a result of land use development consistent with the General Plan Update. To a lesser degree, land use development would be allowed in the eastern areas of the unincorporated County, which would also have the potential to experience construction noise impacts. New or expanded land use development would require the construction of infrastructure that would have the potential to result in substantial construction noise. The majority of new infrastructure would be concentrated in the western region of the unincorporated County.

Additionally, noise from construction activity would have the potential to result in impacts to biological resources, specifically to animal species. To avoid noise impacts associated with construction activities, breeding birds and mammals would have the potential to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality among these animal species. Noise impacts to sensitive animal species would result in a potentially significant impact. Please refer to Section 2.4, Biological Resources, which further addresses noise impacts to biological resources.

### Nuisance Noise

Intermittent or temporary noise from amplified music, public address systems, barking dogs, landscape maintenance, or stand-by power generators are disturbing to residents but are difficult to attenuate and control. These noise sources would result in a significant impact if they would exceed the noise standards included in Sections 36.410, 36.413, 36.414, and 36.416 of the County Noise Ordinance. As shown in Table 2.11-4, noise complaints by residents show that the highest number of complaints is due to barking dogs. Nuisance noise impacts are more likely to occur in the more densely developed areas of the unincorporated County, where residences would be closer together and neighbors would be more likely to hear another neighbor's dog barking or music playing. The General Plan Update would allow intensified residential and mixed-use development in town centers, which would have the potential to result in an increased number of residents registering noise complaints from neighboring uses. The CPAs and Subregions proposed for the greatest amount of growth under the General Plan

Update are the Desert Subregion, Mountain Empire Subregion, North Mountain Subregion, Otay Subregion, Pala/Pauma Valley Subregion, Rainbow CPA, and Valley Center CPA. Intensified development would be accommodated under the General Plan Update in the town centers of Central Mountain Subregion, Crest/Dehesa Subregion, Fallbrook CPA, Julian CPA, Mountain Empire Subregion, Rainbow CPA, San Dieguito CPA, and Valley Center CPA. Therefore, these areas of the unincorporated County are likely to experience an increase in temporary or nuisance noises. However, an attempt to quantify the potential number of future complaints would be speculative. Continuing enforcement of the County Noise Ordinance would reduce potential nuisance noise impacts in all areas of the unincorporated County to the extent feasible. The County updated its noise regulations in 2008 and shall endeavor in the future to maintain the same high levels of compliance by public outreach, education, and continued enforcement activities. As society changes so will the County's response to the public concern about noise and its effects upon County residents.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

Construction and operations of future development under the General Plan Update would be required to comply with the County of San Diego Noise Ordinance. This regulation establishes sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet. This ordinance limits the time of day construction operations may occur and requires that the average sound level for a one hour period not exceed 75 dBA. Other noise generating equipment used would be required generate sound levels that would not exceed 45 dBA between 10:00 p.m. and 7:00 a.m. and 55 dBA between 7:00 a.m. and 10:00 p.m. within the interior of any multiple family dwelling unit. Additionally, the ordinance makes it unlawful for future residents of the unincorporated County to continue, or cause to be made or continued, any disturbing, excessive or offensive noise which causes discomfort or annoyance. In addition, future projects under the General Plan Update would be required to comply with CEQA, which requires projects to identify any potential impacts associated with temporary or periodic increases in ambient noise. Mitigation measures would be required for any significant impacts.

**Proposed General Plan Update Policies**

The proposed General Plan Update Noise Element contains several goals and policies that would reduce noise impacts from construction, temporary, and/or nuisance noise. Goal N-6 is to minimize the effects of intermittent, short-term, or other nuisance noise sources to noise sensitive land uses. This goal is supported by Policies N-6.1 through N-6.6. These policies develop and regularly update codes and ordinances as necessary to reduce impacts, minimize impacts from noise to land uses in areas with recurring intermittent noise, limit the use of high-noise equipment if their activity will result in noise that affects residential zones, limit the hours of operation as appropriate for nonemergency construction and maintenance activities near noise sensitive land uses, schedule special events sponsored by the County that would have the potential to generate excessive noise levels to daytime hours when feasible, and provide sufficient resources within the County for effective enforcement of County codes and ordinances.

**Summary**

Future development under the General Plan Update would have the potential to result in temporary increases in ambient noise levels due to construction of new land uses and infrastructure, as well as an increase in nuisance noise in areas where development would be

intensified. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize temporary increases to ambient noise, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with temporary increases to ambient noise and specific implementation programs are identified as mitigation.

### *2.11.3.5 Issues 5 and 6: Excessive Noise Exposure from a Public or Private Airport*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the California Airport Land Use Planning Handbook, the proposed County General Plan Update would have a significant impact if it would expose people residing or working in the project area to excessive noise levels from a public airport. The level of noise acceptable to new development in the vicinity of proposed new airports, active military airports being converted to civilian use, and existing civilian airports is established as an annual CNEL of 60 dBA.

**Impact Analysis**

As described in Section 2.11.1.2, six public airports are located in the unincorporated County. These include Agua Caliente Airstrip (Desert Subregion), Borrego Valley Airport (Desert Subregion), Fallbrook Community Airpark (Fallbrook CPA), Jacumba Airport (Mountain Empire Subregion), Ocotillo Airstrip (Desert Subregion), and Ramona Airport (Ramona CPA). Gillespie Field is located in the City of El Cajon; however, its 60 dBA annual CNEL noise contour extends into Lakeside CPA. Current public airport operations are provided in Table 2.11-2. Additionally, 29 smaller private-use airports are scattered throughout the unincorporated County. Table 2.11-19 provides the acreages of noise sensitive land uses that would occur within the 60 dBA annual CNEL contour of public airports and Table 2.11-20 provides noise sensitive land uses that would occur within 2 miles of private airports, since noise contours for these airports have not been developed. The Noise Technical Report (PBS&J 2009), included as Appendix F to the EIR, identifies the specific land use designations within each CPA and provides noise contour maps for individual public airports.

Under the General Plan Update, a total of 1,650 acres of land uses with the potential to result in the development of noise sensitive land uses would be located within the 60 dBA annual CNEL noise contour of a public airport. These acreages are based on conservative estimates representing the worst-case scenario. Though exterior noise attenuation is typically not possible for airborne sources of noise, the noise contours do not take into account any interior noise attenuation. Noise contours are based on the annual CNEL, and daily CNEL would have the potential to be higher or lower than this level depending on the day. The annual CNEL is more representative of noise levels in areas in the proximity of airports than the daily CNEL. Unlike traffic flows, which are generally consistent from day to day, airport operations fluctuate, resulting in varying daily CNEL noise levels. Additionally, this estimate assumes that the entire acreage would be developed with noise sensitive land uses, which is unlikely to occur. It is possible that the entire acreage would be developed with noise sensitive land uses that would be compatible with noise levels above 60 dBA according the Noise Compatibility Guidelines in Table 2.11-9. However, the acreage estimate represents entire areas that have been

designated for a land use that would have the potential to accommodate some noise sensitive land uses. The affected areas are within the Desert Subregion, Lakeside CPA, and Ramona CPA. Within the Desert Subregion, a total of 152 acres of public/semi-public facilities (which would have the potential to include noise sensitive land uses such a hospitals or schools) and rural lands (which could include noise sensitive land uses such as residences) are located within the 60 dBA annual CNEL noise contour of the Borrego Valley Airport. A very small area, less than one acre, of designated public/semi-public facilities is located within the 60 dBA annual CNEL noise contour of Gillespie Field Airport in the Lakeside CPA. A total of 1,497 acres of open space, public/semi-public facilities, commercial, rural lands, semi-rural residential, and village residential land uses are designated within the 60 dBA annual CNEL noise contour of the Ramona Airport in the Ramona CPA. These areas could contain existing or future noise sensitive land uses, such as residential uses and educational facilities. Some communities may establish stricter noise standards for land uses near airports in their community plans, which will be updated as part of the General Plan Update process.

Under the General Plan Update, approximately 195,000 acres of land within two miles of a private airstrip is designated for land uses that include noise sensitive land uses. A two mile distance is considered the approximate 60 dBA annual CNEL noise contour when noise contours have not been established for an airport. As described above for public use airports, these acreages are based on conservative estimates representing the worst-case scenario. Though exterior noise attenuation is typically not possible for airborne source of noise, the noise contours do not take into account any interior noise attenuation. Additionally, it is reasonable to assume that the entire acreage would not be developed with noise sensitive land uses. The acreage estimate represents entire areas that have been designated for a land use that would have the potential to accommodate some noise sensitive land uses. Potentially affected CPAs and Subregions are Alpine CPA, Central Mountain Subregion, Desert Subregion, Jamul/Dulzura Subregion, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, Otay Subregion, Pala/Pauma Valley Subregion, Ramona CPA, and Valley Center CPA. Land use designations potentially affected in Alpine CPA, Central Mountain Subregion, and Otay Subregion are low density designations such as rural land and federal and State lands. Due to the low density of development allowed in rural areas and high amount of conservation land in federal and State lands and designated open space, these land uses have a low potential for noise impacts from airports than higher density land use designations. However, The General Plan Update would accommodate higher density land use designations such as village or semi-rural residential, or would have the potential to include public facilities such as schools and hospitals, within two miles of a public airstrip in the Desert Subregion, Jamul/Dulzura Subregion, Lakeside CPA, Mountain Empire Subregion, North County Metro Subregion, North Mountain Subregion, Pala/Pauma Valley Subregion, Ramona CPA, and Valley Center CPA. These land uses are more likely to be developed with noise sensitive land uses within the two mile vicinity of an airport due to their higher density growth potential.

Public airports and private airstrips would have the potential to result in excessive noise impacts to noise sensitive land uses from activities such as aircraft takeoffs and landings. Noise sensitive land uses should generally not be located within the 60 dBA annual CNEL noise contour of a public airport, or within two miles of a private airstrip. The General Plan Update does not propose any new public or private airstrips; however, it does propose land use designations that would allow noise sensitive land uses that would be exposed to excessive noise impacts from an existing public airport or private airstrip.

### Federal, State, and Local Regulations and Existing Regulatory Processes

Future development under the General Plan Update would be required to comply with the 1990 California Airport Noise Standards that establish a CNEL value of 65 dBA as the level of noise acceptable to a reasonable person residing in the vicinity of an airport, and applicable ALUCPs. ALUCPs are plans that are intended to minimize the public's exposure to excessive noise within areas around public airports, and designate compatible and incompatible land uses surrounding the airport. However, ALUCPs are not required for private airstrips. Additionally, future discretionary projects proposed under the General Plan Update would be required to be consistent with CEQA, which requires that proposed projects identify all potential impacts associated with excessive noise from public or private airports. Mitigation measures such as double-paned windows and public statements such as the disclosure of potential overflight noise would be required for any significant impacts.

### Proposed General Plan Update Goals and Policies

The Noise Element contains Policy N-4.9 that would reduce potential noise impacts to noise sensitive land uses. This policy assures the noise compatibility of development that would have the potential to be affected by noise from public or private airports and helipads during project review by coordinating, as appropriate, with appropriate agencies such as the SDCAA and the FAA. Additionally, the Safety Element includes Goal S-15 that minimizes the risk of personal injury to flight occupants as well as potential damage to ground-level persons and property. This goal is supported by Policies S-15.1, S-15.2, and S-15.4. These policies require land uses surrounding airports to be compatible with airport operations and require operational plans for new and existing airports to be compatible with land uses that surround the airport facility. In addition, these policies would ensure that private airstrips and heliports are located outside of the safety zones and flight paths of existing airports. These policies require land uses surrounding airports to be compatible with airport operations. Land use compatibility includes noise compatibility.

### Summary

The proposed General Plan Update includes land use designations that would potentially result in the development of noise sensitive land uses near a public or private airstrip that would result in the exposure of persons to excessive noise levels. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to minimize excessive noise from aircraft, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated excessive noise from aircraft and specific implementation programs are identified as mitigation.

## 2.11.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for noise is limited to areas surrounding noise-generating sources, such as roadways, agricultural or industrial uses because noise impacts are localized in nature. The following five sections describe potentially significant cumulative noise impacts in the San Diego County vicinity and the proposed General Plan Update's contribution to potential cumulative noise impacts.

### *2.11.4.1 Issue 1: Excessive Noise Levels*

A cumulative noise impact would occur if construction and operation associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, combined would exceed the noise compatibility guidelines and standards of the Noise Element listed in Tables 2.11-7 and 2.11-8. For example, the San Diego Regional Transportation Plan projects listed in Table 1-8, 2030 San Diego Regional Transportation Plan Projects, such as the expansion of a portion of I-8, would increase traffic noise above the Noise Element standards. However, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as those contained in the State of California Code of Regulations and by the OSM. The exception to this would be projects proposed in the Country of Mexico along the U.S./Mexico international border and on tribal lands. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S, development in Mexico along the U.S./Mexico international border or on tribal lands within the vicinity of existing noise sensitive land uses would not be required to comply with the same noise standards and a potentially significant cumulative impact would occur.

As discussed above in Section 2.11.3.1, Issue 1: Excessive Noise Levels, proposed development associated with build out of the General Plan Update would result in land uses exposed to noise levels in excess of noise compatibility guidelines and standards. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with noise.

### *2.11.4.2 Issue 2: Excessive Groundborne Vibration*

A cumulative ground-borne vibration impact would occur if one or more cumulative projects would exceed the FTA and Federal Railroad Administration guidelines for groundborne vibration and noise. However, there are no specific plans or time scales for individual construction projects. Therefore, it is not possible to determine exact vibration levels, locations, or time periods for construction. Potential vibration impacts from construction would need to be analyzed on a case-by-case basis. Therefore, cumulative projects have the potential to result in a significant cumulative impact if located in close proximity to one another and if construction of multiple cumulative projects were to occur at the same time. For example, construction of Bradley Avenue project in Lakeside CPA, listed in Table 1-11, Projects Not Included in the Proposed General Plan Update Land Use Map, would result in groundborne vibration. Lakeside CPA is a developed community of the unincorporated County and would accommodate further growth under the General Plan Update. Construction of the 30 residential units of the Bradley Avenue project at the same time as other construction projects in the proximity of existing vibration sensitive land uses would increase vibration levels beyond the standards in the County significance thresholds. However, most cumulative projects would be subject to the FTA and Federal Railroad Administration guidelines. The exception to this would be projects proposed in the Country of Mexico along the U.S./Mexico international border and on tribal lands. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S, development in Mexico along the U.S./Mexico international border or on tribal lands would not be required to comply with the same groundborne vibration standards and a potentially significant cumulative impact would occur.

As discussed above in Section 2.11.3.2, Issue 2: Excessive Groundborne Vibration, construction of new land uses under the General Plan Update and placement of new development in close proximity to existing railroads or extraction operations would have the potential to result in impacts associated with excessive groundborne vibration. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with groundborne vibration.

### *2.11.4.3 Issue 3: Permanent Increase in Ambient Noise Levels*

A cumulative noise impact would occur if construction and development associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, when combined would result in an increase in ambient noise that would exceed the County's noise standards. For example, RTP projects listed in Table 1-8, 2030 San Diego Regional Transportation Plan Projects, such as the extension of SR-905 from I-805 to the U.S./Mexico international border and widening of SR-94 from SR-125 to Jamacha Road, would result in a permanent increase in ambient noise due to an increase in roadway noise. However, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards. The exception to this would be projects proposed in the Country of Mexico along the U.S./Mexico international border and on tribal lands. As discussed above in Section 2.11.1.2, the 24-hour noise measurement taken outside a casino as part of the community noise survey measured a CNEL of 73 dBA, approximately 60 feet from the centerline of the road providing access to the casino. This measurement suggests that future casino development on tribal lands, such as the projects listed in Table 1-12, Projects on Tribal Lands in San Diego County, could result in an increase in ambient noise due to increases in traffic on local roads associated with vehicles and passenger buses that transport customers to and from casinos. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S, development of land uses in Mexico along the U.S./Mexico international border or on tribal lands that permanently increase noise would not be required to comply with the same noise standards and a potentially significant cumulative impact could occur.

As discussed above in Section 2.11.3.3, Issue 3: Permanent Increase in Ambient Noise Levels, the General Plan Update would result in a permanent increase in ambient noise levels. Therefore, the General Plan Update, in combination with the identified cumulative projects located in close proximity to development consistent with the General Plan Update, would have the potential to result in a significant cumulative impact.

### *2.11.4.4 Issue 4: Temporary Increase in Ambient Noise Levels*

A cumulative noise impact would occur if construction associated with one or more projects in close proximity to one another would result in combined noise levels that would temporarily increase ambient noise levels beyond the standards in the County Noise Ordinance. However, since there are no specific plans or time scales for individual projects, it is not possible to determine exact noise levels, locations, or time periods for construction. Additionally, projects would have to be constructed in close proximity to each other to result in a cumulative impact. Construction projects in incorporated jurisdictions would be subject to noise standards and limits for the jurisdiction in which they are proposed. Projects proposed in the Country of Mexico along the U.S./Mexico international border and on tribal lands would not be subject to County of San Diego noise regulations and standards; however, potential construction noise-related

impacts in these areas would be temporary and limited to the area immediately surrounding the project. Similarly, a cumulative nuisance noise impact would occur if noise associated with one or more land uses in an area would result in combined noise levels that would temporarily increase ambient noise levels beyond the standards in the County Noise Ordinance. However, these events would be short-term and event-specific in nature. Therefore, a potentially significant cumulative impact associated with temporary increase in ambient noise levels would not occur. The proposed project would not contribute to a significant cumulative impact.

### *2.11.4.5 Issues 5 and 6: Excessive Noise Exposure from a Public or Private Airport*

A cumulative noise impact would occur if construction and operation associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, when combined would result in the exposure of noise sensitive land uses to excessive noise from a public or private airport. Development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as the 1990 California Airport Noise Standards and applicable ALUCPs. The exception to this would be projects proposed in the Country of Mexico along the U.S./Mexico international border and on tribal lands. It is possible that a new private airstrip would be proposed as part of a cumulative project on tribal land or in Mexico along the U.S./Mexico international border that would result in the exposure to noise sensitive land uses to excessive noise. For example, a health clinic is proposed for the Ewiiaapaay Reservation, as listed in Table 1-12, Projects on Tribal Lands in San Diego County. Health clinics sometimes include helipads to transport patients. Therefore, even though required regulations would minimize the cumulative impact of projects in the U.S, development in Mexico along the U.S./Mexico international border or on tribal lands within the vicinity of existing noise sensitive land uses would not be required to comply with the same noise standards and a potentially significant cumulative impact to would occur.

As discussed above in Section 2.11.3.5, Issues 5 and 6: Excessive Noise Exposure from a Public or Private Airport, proposed development associated with build out of the General Plan Update would result in noise sensitive land uses exposed to excessive noise. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with excessive aircraft noise.

## 2.11.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would result in a potentially significant impact associated with excessive noise, excessive groundborne vibration, permanent increases in ambient noise, temporary increases in ambient noise, and excessive noise from a public or private airport. The proposed project would have the potential to result in cumulatively considerable contribution to potentially significant cumulative impacts associated with excessive noise, excessive groundborne vibration, permanent increases in ambient noise, and excessive noise from a public or private airport.

## 2.11.6 Mitigation

### *2.11.6.1 Issue 1: Excessive Noise Levels*

The following General Plan Update policies and mitigation measures would reduce direct and cumulative proposed project impacts related to excessive noise levels to a less than significant level.

**General Plan Update Policies**

**Policy LU-2.8: Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

**Policy M-1.3: Treatment of High-Volume Roadways.** To avoid bisecting communities or town centers, consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads, through landscaping, design, and/or careful location of facilities.

**Policy M-2.4: Roadway Noise Buffers.** Incorporate buffers or other noise reduction measures consistent with standards established in the Noise Element into the siting and design of roads located next to sensitive noise-receptors to minimize adverse impacts from traffic noise. Consider reduction measures such as alternative road design, reduced speeds, alternative paving, and setbacks or buffers, prior to berms and walls.

**Policy N-1.4: Adjacent Jurisdiction Noise Standards.** Incorporate the noise standards of an adjacent jurisdiction into the evaluation of a proposed project when it has the potential to impact the noise environment of that jurisdiction.

**Policy N-1.5: Regional Noise Impacts.** Work with local and regional transit agencies and/or other jurisdictions, as appropriate, to provide services or facilities to minimize regional traffic noise and other sources of noise in the County.

**Policy N-2.1: Development Impacts to Noise Sensitive Land Uses.** Require an acoustical study to identify inappropriate noise levels where development may directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 CNEL and require mitigation for sensitive uses in compliance with the noise standards listed in Table N-2 in the Noise Element.

**Policy N-2.2: Balconies and Patios.** Assure that in developments where the exterior noise level on patios or balconies for multi-family residences or mixed-use developments exceed 65 CNEL, a solid noise barrier is incorporated into the building design of the balconies and patios while still maintaining the openness of the patio or balcony.

**Policy N-4.1: Traffic Noise.** Require that projects proposing General Plan amendments that increase the average daily traffic beyond what is anticipated in this General Plan do not increase cumulative traffic noise to off-site noise sensitive land uses beyond acceptable levels.

**Policy N-4.2: Traffic Calming.** Include traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise in development that may impact noise sensitive land uses.

**Policy N-4.3: Jurisdictional Coordination.** Coordinate with California Department of Transportation (Caltrans), the City of San Diego, and other adjacent jurisdictions, as appropriate, for early review of proposed new and expanded State freeways, highways, and road improvement projects within or affecting the unincorporated County to: 1) locate facilities where the impacts to noise sensitive land uses would be minimized, and 2) develop and include noise abatement measures in the projects to minimize and/or avoid the impacts to noise sensitive land uses.

**Policy N-4.5: Roadway Location.** Locate new or expanded roads designated in the Mobility Element in areas where the impact to noise sensitive land uses would be minimized.

**Policy N-4.7: Railway Jurisdictional Coordination.** Work with the San Diego Association of Governments (SANDAG), Caltrans, Metropolitan Transit System (MTS), California High-Speed Rail Authority, and passenger and freight train operators as appropriate to install noise attenuation features to minimize impacts to adjacent residential or other noise sensitive uses from railroad operations.

**Policy N-4.8: Train Horn Noise.** Establish train horn "quiet zones" with new rail projects consistent with federal regulations, where applicable. Promote community programs for existing at-grade crossings by working with rail operators.

**Mitigation Measures**

**Noi-1.1** Require an acoustical analysis whenever a new development may result in any existing or future noise sensitive land uses being subject to on-site noise levels of 60 dBA (CNEL) or greater, or other land uses that may result in noise levels exceeding the "Acceptable" standard in the Noise Compatibility Guidelines (Table N-1 in the Noise Element).

**Noi-1.2** Revise the Guidelines for Determining Significance for new developments where the exterior noise level on patios or balconies for multi-family residences or mixed-use development exceeds 65 dBA (CNEL), a solid noise barrier is incorporated into the building design of balconies and patios for units that exceed 65 dBA (CNEL) while still maintaining the openness of the patio or balcony.

**Noi-1.3** Require an acoustical study for projects proposing amendments to the County General Plan Land Use Element and/or Mobility Element that propose a significant increase to the average daily traffic due to trips associated with the project beyond those anticipated in the General Plan.

**Noi-1.4** Edit the Guidelines for Determining Significance standard mitigation and project design considerations to promote traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise.

**Noi-1.5** Coordinate with Caltrans and SANDAG as appropriate to identify and analyze appropriate route alternatives that may minimize noise impacts to noise sensitive land uses within the unincorporated areas of San Diego County.

**Noi-1.6** Coordinate with SANDAG, MTS, California High-Speed Rail Authority as appropriate, and passenger and freight train operators to install noise attenuation features to minimize impacts to adjacent residential or other noise sensitive land uses.

**Noi-1.7** Work with project applicants during the scoping phase of proposed projects to take into consideration impacts resulting from on-site noise generation to noise sensitive land uses located outside the County's jurisdictional authority. The County will notify and coordinate with the appropriate jurisdiction(s) to determine appropriate project design techniques and/or mitigation.

**Noi-1.8** Implement and/or establish procedures (or cooperative agreements) with Caltrans, the City of San Diego, and other jurisdictions as appropriate to ensure that a public participation process or forum is available for the affected community to participate and discuss issues regarding transportation generated noise impacts for new or expanded roadway projects that may affect noise sensitive land uses within the unincorporated areas of San Diego County.

**Noi-1.9** Coordinate with Caltrans and the DPLU Landscape Architect, and receive input from community representatives as appropriate (e.g., Planning or Sponsor Group) to determine the appropriate noise mitigation measure (planted berms, noise attenuation barriers or a combination of the two) to be required as a part of the proposals for roadway improvement projects and ensure that the County's Five Year Capital Improvement Program and Preliminary Engineering Reports address noise impacts and appropriate mitigation measures for road improvement projects within or affecting the unincorporated area of the County.

### *2.11.6.2 Issue 2: Excessive Groundborne Vibration*

The following General Plan Update policies and mitigation measures would reduce direct and cumulative proposed project impacts related to excessive groundborne vibration to below a significant level.

**General Plan Update Policies**

**Policy N-3.1: Groundborne Vibration.** Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to groundborne vibration from trains, construction equipment, and other sources.

**Policy N-4.7: Railway Jurisdictional Coordination.** Work with the San Diego Association of Governments (SANDAG), Caltrans, Metropolitan Transit System (MTS), California High-Speed Rail Authority, and passenger and freight train operators as appropriate to install noise attenuation features to minimize impacts to adjacent residential or other noise sensitive uses from railroad operations.

**Policy N-5.2: Noise-Generating Industrial Facilities.** Locate noise-generating industrial facilities at the maximum practical distance from residential zones. Use setbacks between noise generating equipment and noise sensitive uses and limit the operation of noise generating activities to daytime hours as appropriate where such activities may affect residential uses.

**Policy N-6.3: High-Noise Equipment.** Require development to limit the frequency of use of motorized landscaping equipment, parking lot sweepers, and other high-noise equipment if their activity will result in noise that affects residential zones.

**Policy N-6.4: Hours of Construction.** Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

**Mitigation Measures**

Mitigation measure Noi-1.7 as described above is applicable to this issue and is incorporated here by reference. In addition, the following measures would further reduce impacts associated with excessive groundborne vibration.

**Noi-2.1** For Land Use Designations defined in Table 2.11-14, a ground-borne vibration technical study shall be required for proposed land uses within the following distances from the Sprinter Rail Line right-of-way and the property line: 600 feet of a Category 1 Land Use, 200 feet of a Category 2 Land Use, and 120 feet of a Category 3 Land Use. If necessary, mitigation shall be required for land uses in compliance with the standards listed in Tables 2 and 3 of the County of San Diego Guidelines for Determining Significance - Noise.

**Noi-2.2** Revise the County CEQA determinations of significance to reflect limits in the Noise Compatibility Guidelines and Noise Standards [Policy N-3.1]. Periodically review the Guidelines for Determining Significance to incorporate standards for minimizing effects of groundborne vibration during project operation or construction.

**Noi-2.3** Review project applications for industrial facilities to ensure they are located in areas that would minimize impacts to noise-sensitive land uses. Revise CEQA Guidelines for Determining Significance to incorporate appropriate noise attenuation measures for minimizing industrial-related noise.

**Noi-2.4** Require an acoustical study whenever a proposed extractive land use facility may result in a significant noise impact to existing noise sensitive land uses, or when a proposed noise sensitive land use may be significantly affected by an existing extractive land use facility. The results of the acoustical study may require a “buffer zone” to be identified on all Major Use Permit applications for extractive facilities whenever a potential for a noise impact to noise sensitive land uses may occur.

### *2.11.6.3 Issue 3: Permanent Increase in Ambient Noise Levels*

The proposed General Plan Update would result in a potentially significant impact associated with a permanent increase in ambient noise levels. General Plan Update policies and mitigation measures (described below) have been identified that would reduce impacts associated with a permanent increase in ambient noise levels to a level below significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measure was considered in attempting to reduce impacts associated with permanent increases in ambient noise levels to below a level of significance. However, the County has determined that this measure would be infeasible, as described below. Therefore, this mitigation measure would not be implemented.

- Prohibit new roadways or roadway improvements that would result in a significant increase in the ambient noise level. The measure would prohibit the construction of many roadway projects proposed in the Circulation Element because they would result in increases in ambient noise. This measure is infeasible because it would restrict future development in areas identified for increased growth under the General Plan Update because new roadways to serve this growth would not be constructed. Additionally, this mitigation measure would conflict with the project objective to provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns because it would prohibit the development of new roadways.

Because the measure listed above have been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with a permanent increase in ambient noise levels as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with permanent increases in ambient noise level, but not to below a significant level.

**Policy LU-2.8: Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

**Policy M-1.3: Treatment of High-Volume Roadways.** To avoid bisecting communities or town centers, consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads, through landscaping, design, and/or careful location of facilities.

**Policy M-2.4: Roadway Noise Buffers.** Incorporate buffers or other noise reduction measures consistent with standards established in the Noise Element into the siting and design of roads located next to sensitive noise-receptors to minimize adverse impacts from traffic noise. Consider reduction measures such as alternative road design, reduced speeds, alternative paving, and setbacks or buffers, prior to berms and walls.

**Policy N-1.5: Regional Noise Impacts.** Work with local and regional transit agencies and/or other jurisdictions, as appropriate, to provide services or facilities to minimize regional traffic noise and other sources of noise in the County.

**Policy N-4.1: Traffic Noise.** Require that projects proposing General Plan amendments that increase the average daily traffic beyond what is anticipated in this General Plan do not increase cumulative traffic noise to off-site noise sensitive land uses beyond acceptable levels.

**Policy N-4.2: Traffic Calming.** Include traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise in development that may impact noise sensitive land uses.

**Policy N-4.6: Road Improvement Projects.** For County road improvement projects, evaluate the proposed project against ambient noise levels to determine whether the project would increase ambient noise levels by more than three decibels. If so, apply the limits in the noise standards listed in Table N-2 for noise sensitive land uses that may be affected by the increased noise levels. For federally funded roadway construction projects, use the limits in the applicable Federal Highway Administration Standards.

**Policy N-5.1: Truck Access.** Design development so that automobile and truck access to industrial and commercial properties abutting residential properties is located at the maximum practical distance from residential zones.

**Policy N-5.2: Noise-Generating Industrial Facilities.** Locate noise-generating industrial facilities at the maximum practical distance from residential zones. Use setbacks between noise generating equipment and noise sensitive uses and limit the operation of noise generating activities to daytime hours as appropriate where such activities may affect residential uses.

**Mitigation Measures**

Mitigation measures Noi-1.3, Noi-1.4, Noi-1.5, Noi-1.8, Noi-2.3 and Noi-2.4 as described above are applicable to this issue and are incorporated here by reference. In addition, the following measures would further reduce impacts associated with permanent increases in ambient noise levels, although not to below a significant level.

**Noi-3.1** Ensure that for new County road improvement projects either the County's Noise Standards are used to evaluate noise impacts or the project does not exceed 3 decibels over existing noise levels [Policy N-4.6]

**Noi-3.2** Work with the project applicant during the review of either the building permit or discretionary action (whichever is applicable) to determine appropriate noise reduction site design techniques that include:

- Orientation of loading/unloading docks away from noise sensitive land uses

- Setbacks or buffers to separate noise generating activities from noise sensitive land uses
- Design on-site ingress and egress access away from noise sensitive land uses [Policy N-5.1]

### *2.11.6.4 Issue 4: Temporary Increase in Ambient Noise Levels*

The following General Plan Update policies and mitigation measures would reduce the direct impacts associated with the General Plan Update to below a significant level.

**General Plan Update Policies**

**Policy N-6.1: Noise Regulations.** Develop and regularly update codes and ordinances as necessary to regulate impacts from point, intermittent, and other disruptive noise sources.

**Policy N-6.2: Recurring Intermittent Noise.** Minimize impacts from noise in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2, but can have other adverse effects.

**Policy N-6.3: High-Noise Equipment.** Require development to limit the frequency of use of motorized landscaping equipment, parking lot sweepers, and other high-noise equipment if their activity will result in noise that affects residential zones.

**Policy N-6.4: Hours of Construction.** Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

**Policy N-6.5: Special Events.** Schedule special events sponsored by the County that may generate excessive noise levels to daytime hours when feasible.

**Policy N-6.6: Code Enforcement.** Provide sufficient resources within the County for effective enforcement of County codes and ordinances.

**Mitigation Measures**

**Noi-4.1** Periodically review and revise the Noise Ordinance and Section 6300 of the Zoning Ordinance as necessary to ensure appropriate restrictions for intermittent, short-term, or other nuisance noise sources.

**Noi-4.2** Augment staff and equipment as appropriate to facilitate enforcement of the Noise Ordinance.

### *2.11.6.5 Issues 5 and 6: Excessive Noise Exposure from a Public or Private Airport*

The following General Plan Update policies and mitigation measures would reduce the direct and cumulative impacts associated with the General Plan Update to below a significant level.

**General Plan Update Policies**

**Policy N-4.9: Airport Compatibility.** Assure the noise compatibility of any development projects that may be affected by noise from public or private airports and helipads during project review by coordinating, as appropriate, with appropriate agencies such as the San Diego County Regional Airport Authority (SDCRAA) and the Federal Aviation Administration (FAA).

**Policy S-15.1: Land Use Compatibility.** Require land uses surrounding airports to be compatible with the operation of each airport.

**Policy S-15.2: Airport Operational Plans.** Require operational plans for new public/private airports and heliports, as well as future operational changes to existing airports, to be compatible with existing and planned land uses that surround the airport facility.

**Policy S-15.4: Private Airstrip and Heliport Location.** Locate private airstrips and heliports outside of safety zones and flight paths for existing airports where they are compatible with surrounding established and planned land uses, and in a manner to avoid impacting public roadways and facilities.

**Mitigation Measures**

**Noi-5.1** Use the applicable Airport Land Use Compatibility Plan's (ALUCP) as guidance/reference during development review of projects that are planned within an Airport Influence Area (AIA). Any projects that are within the AIA shall be submitted to the San Diego County Regional Airport Authority (SDCRAA) for review.

**Noi-5.2** Evaluate noise exposure impacts related to a private airport or heliport use or consistency with the FAA standards.

**Noi-5.3** Consult with the FAA standards and the County Noise Ordinance as a guide for assessing noise impacts from private airports and helipads.

## 2.11.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.11.7.1 Issue 1: Excessive Noise Levels*

Implementation of the proposed General Plan Update would have the potential to expose land uses to noise levels in excess of noise compatibility guidelines. Therefore, the proposed project would result in a potentially significant impact. In addition, the proposed project would have the potential to contribute to a potentially significant cumulative impact associated with excessive noise levels. However, implementation of the proposed General Plan Update policies, and corresponding mitigation measures would mitigate these impacts to a level below significant.

### 2.11.7.2 Issue 2: Excessive Groundborne Vibration

Implementation of the General Plan Update would have the potential to affect groundborne vibration sensitive land uses near the Sprinter Rail Line and where construction equipment would operate within vibration-sensitive land uses. Therefore, the proposed project would result in a potentially significant impact. In addition, the proposed project would have the potential to contribute to a potentially significant cumulative impact associated with excessive groundborne vibration. However, implementation of the proposed General Plan Update policies and mitigation measures would reduce the project's potential direct impact and contribution to a cumulative impact to a less than significant level.

### 2.11.7.3 Issue 3: Permanent Increase in Ambient Noise Levels

Implementation of the General Plan Update would permanently increase ambient noise along roadways. Therefore, the proposed project would result in a potentially significant impact. Additionally, General Plan Update would result in a cumulatively considerable contribution to a potentially significant cumulative impact. Although implementation of the proposed General Plan Update policies and mitigation measures would reduce the project's direct impact and contribution to a cumulative impact to the extent feasible, impacts associated with permanent noise increases would remain significant and unavoidable. Alternatives that would further reduce this noise impact as compared to the proposed project are discussed in Chapter 4.0, Project Alternatives.

### 2.11.7.4 Issue 4: Temporary Increase in Ambient Noise Levels

Implementation of the General Plan Update would have the potential to temporarily increase ambient noise from construction activity as well as other sources of temporary or nuisance noise. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate the proposed project's direct impacts to a less than significant level. In addition, the proposed project would not contribute to a potentially significant cumulative impact associated with a temporary increase in ambient noise levels.

### 2.11.7.5 Issues 5 and 6: Excessive Noise Exposure from a Public or Private Airport

Implementation of the General Plan Update would have the potential to expose noise sensitive land uses to excessive noise from a public or private airport. Therefore, the proposed project would result in a potentially significant impact. In addition, the proposed project would have the potential to contribute to a potentially significant cumulative impact associated with excessive noise exposure from airports. However, implementation of the proposed General Plan Update policies and corresponding implementation projects, in addition to compliance with the 1990 California Airport Noise Standards and applicable ALUCPs, would reduce potential direct and cumulative impacts to a less than significant level.

## Table 2.11-1. Typical A-Weighted Noise Levels

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|---|---|---|
| | — 110 — | Rock band |
| Jet fly over at 1,000 feet | | |
| | — 100 — | |
| Gas lawn mower at 3 feet | | |
| | — 90 — | |
| Diesel truck at 50 feet at 50 mph | | Food blender at 3 feet |
| | — 80 — | Garbage disposal at 3 feet |
| Noisy urban area, daytime | | |
| Gas lawn mower, 100 feet | — 70 — | Vacuum cleaner at 10 feet |
| Commercial area | | Normal speech at 3 feet |
| Heavy traffic at 300 feet | — 60 — | |
| | | Large business office |
| Quiet urban daytime | — 50 — | Dishwasher next room |
| | | |
| Quiet urban nighttime | — 40 — | Theater, large conference room (background) |
| Quiet suburban nighttime | | |
| | — 30 — | Library |
| Quiet rural nighttime | | Bedroom at night, concert |
| | — 20 — | |
| | | Broadcast/recording studio |
| | — 10 — | |
| | | |
| Lowest threshold of human hearing | — 0 — | Lowest threshold of human hearing |

Source: Caltrans 1998

## Table 2.11-2. Current Public Airport Operations in the Unincorporated County

| Airport Name | Annual Operations (2007) | Based Aircrafts |
|---|---|---|
| Agua Caliente Airstrip | 4,400 | 1 |
| Borrego Valley Airport | 26,251 | 23 |
| Fallbrook Airpark | 33,286 | 125 |
| Gillespie Field[(1)] | 300,391 | 978 |
| Jacumba Airport | 325 | 0 |
| Ocotillo Airport | 800 | 0 |
| Ramona Airport | 134,691 | 209 |

(1) This airport is located in the City of El Cajon but noise contours extend into the Lakeside CPA.

Source: DPW 2008d

## Table 2.11-3. Typical Extraction Equipment Noise Levels

| Description | Distance from Source (ft) | Hourly Leq (dBA) |
|---|---|---|
| Aggregate Washing Plant | 50 | 75 |
| Asphalt Plant | 50 | 82 |
| Bridge Saw | 50 | 78 |
| Bulldozer | 50 | 81 |
| Concrete Batch Plant | 50 | 81 |
| Diamond Wire Block Saw | 50 | 68 |
| Drill Rig | 50 | 85 |
| Front End Loader | 50 | 72 |
| Hydraulic Excavator | 50 | 77 |
| Motor Grader | 50 | 91 |
| Power Screen | 50 | 76 |
| Power Shovel | 50 | 75 |
| Rock Crusher | 50 | 75 |
| Wheel Polisher | 50 | 50 |

Sources: Kimley-Horn and Associates, Inc. 2005; Pacific Noise Control 1996; URS 2002; URS 2003

## Table 2.11-4. Noise Complaints by Community (2006)

| Community[1] | Bird | Construction | Dog | Machinery | Music | Off-road Vehicles | Rooster | Total |
|---|---|---|---|---|---|---|---|---|
| Alpine | | | 9 | | | 3 | | 12 |
| Bonsall | | 1 | 16 | 3 | 1 | | 5 | 26 |
| Borrego Springs | | | 2 | 1 | | | | 3 |
| Boulevard | | 1 | 1 | | | 1 | | 3 |
| Campo/Lake Morena | | | 2 | 1 | | | 1 | 4 |
| Crest/Dehesa | 3 | | 32 | 3 | | 2 | 2 | 42 |
| Descanso | | | | | | 1 | | 1 |
| Fallbrook | | 1 | 34 | 3 | 1 | 1 | 8 | 48 |
| Jacumba | | | 1 | | | | | 1 |
| Jamul/Dulzura | | | 7 | 4 | | 1 | 1 | 13 |
| Julian | | 1 | 2 | | | | 1 | 4 |
| Lakeside | 1 | | 28 | 2 | 1 | 5 | 1 | 38 |
| Pala/Pauma Valley | | | 1 | 1 | | | | 2 |
| Pine Valley | | | 9 | | | | | 9 |
| Ramona | | 1 | 22 | 1 | 1 | 3 | 1 | 29 |
| San Dieguito | 1 | 1 | 31 | 3 | 4 | | 1 | 41 |
| Spring Valley | 2 | 3 | 56 | 2 | 3 | | 6 | 72 |
| Sweetwater | | 1 | 12 | 3 | | | 1 | 17 |
| Tecate | | | | 1 | | | | 1 |
| Twin Oaks Valley | | | 5 | | | | 1 | 6 |
| Valle de Oro | 1 | | 42 | | 1 | | 3 | 47 |
| Valley Center | 2 | 2 | 38 | 2 | | 5 | 5 | 54 |
| **Total** | **10** | **12** | **350** | **30** | **12** | **22** | **37** | **473** |

[1] Communities with no reported noise complaints in 2006 are not included in this table.
Source: County 2006

## Table 2.11-5. Summary of Community Noise Levels

| Major Noise Sources | Noise Level (Leq)[1] |
|---|---|
| Freeways and Highways | 70 dBA |
| Major Arterials | 66 – 71 dBA |
| Passenger Rail | 70 dBA |
| Airports | 56 dBA |
| Commercial | 65 – 69 dBA |
| Industrial | 61 – 62 dBA |
| Agricultural | 44 – 68 dBA |
| | |
| Other Uses | 59 – 74 dBA |
| Noise-Sensitive Uses | 43 – 65 dBA |

[1] All noise levels are short-term (15-minute) measurements
Source: PBS&J 2009

## Table 2.11-6. Summary of Noise Levels for 24-Hour Monitoring Sites

| Location | Distance from Roadway Centerline (ft) | CNEL | 24-Hour $L_{EQ}$ | Hourly $L_{EQ}$ | $L_{10}$ | $L_{90}$ | $L_{MIN}$ |
|---|---|---|---|---|---|---|---|
| I-15 between Pala Road and Lilac Road | 220 | 66 dBA | 62 dBA | 53-66 dBA | 66 dBA | 53 dBA | 37-64 dBA |
| Wildcat Canyon Road (near casino) | 60 | 73 dBA | 67 dBA | 61-70 dBA | 72 dBA | 40 dBA | 36-49 dBA |

Source: PBS&J 2009

## Table 2.11-7. Noise Compatibility Criteria Alternatives

| | 65 dBA CNEL | 60 dBA CNEL | 55 dBA CNEL |
|---|---|---|---|
| Criteria | • Set by the FAA and other federal agencies as level above which residential land uses may be incompatible if not acoustically treated.<br>• Established by California State regulations as the maximum normally acceptable for residential and certain other land uses at county-designated noise-problem airports.<br>• Schultz curve predicts that about 13% of the population will be highly annoyed at this noise exposure. | • The contour within which California Building Code (Section 1208A) requires an acoustical analysis of proposed residential structures, other than detached single-family dwellings.<br>• Suggested by the California Office of Planning and Research *General Plan Guidelines* as the maximum "normally acceptable" noise exposure for residential areas.<br>• Individual noise events will occasionally cause significant interference with residential land use activities, particularly outdoor activities, in quiet suburban/rural communities.<br>• Schultz curve indicates about 7% of population highly annoyed. | • Identified by the U.S. Environmental Protection Agency as the level below which "undue interference with activity and annoyance" will not occur.<br>• Individual noise events will seldom significantly interfere with residential land use activities (e.g., interference with speech).<br>• Schultz curve shows about 4% of population highly annoyed at this noise level.<br>• In urban areas, aircraft contribution to this noise level may be less than that of other noise sources. |
| Suggested Applicability | • Generally not appropriate for most new development.<br>• May be acceptable in noisy urban locations and/or in hot climates where most buildings are air conditioned. | • Suitable for new development around most airports.<br>• Particularly appropriate in mild climates where windows are often open. | • Suitable for airports in quiet, rural locations. |

Source: Caltrans 2002b

## Table 2.11-8. Adjustment Factors for Obtaining Normalized CNEL

| Type of Correction | Description | Amount of Correction to be Added to Measured CNEL in dBA[(1)] |
|---|---|---|
| Seasonal Correction | Summer (or year-round operation). | 0 |
| | Winter only (or windows always closed). | – 5 |
| Correction for Outdoor Noise Level Measured in Absence of Intruding Noise | Quiet suburban or rural community (remote from large cities and from industrial activity and trucking). | + 10 |
| | Normal suburban community (not located near industrial activity). | + 5 |
| | Urban residential community (not immediately adjacent to heavily traveled roads and industrial areas). | 0 |
| | Noisy urban residential community (near relatively busy roads or industrial areas). | – 5 |
| | Very noisy urban residential community. | – 10 |
| Correction for Previous Exposure & Community Attitudes | No prior experience with the intruding noise. | + 5 |
| | Community has had some previous exposure to intruding noise but little effort is being made to control the noise. This correction may also be applied in a situation where the community has not been exposed to the noise previously, but the people are aware that bona fide efforts are being made to control the noise. | 0 |
| | Community has had considerable previous exposure to the intruding noise and the noise maker's relations with the community are good. | – 5 |
| | Community aware that operation causing noise is very necessary and it will not continue indefinitely. This correction can be applied for an operation of limited duration and under emergency circumstances. | – 10 |
| Pure Tone or Impulse | No pure tone or impulsive character. | 0 |
| | Pure tone or impulsive character present. | + 5 |

(1) Notes: Source document uses the equivalent DNL metric.
Source: Caltrans 2002b

## Table 2.11-9. Noise Compatibility Guidelines[2]

| Land Use Category | | Exterior Noise Level (CNEL) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 55 | 60 | 65 | 70 | 75 | 80 |
| A | Residential—single family residences, mobile homes, senior housing, convalescent homes | | | | | | |
| B | Residential—multi-family residences, mixed-use (commercial/residential) | | | | | | |
| C | Transient lodging—motels, hotels, resorts | | | | | | |
| D[1] | Schools, churches, hospitals, nursing homes, child care facilities | | | | | | |
| E[1] | Passive recreational parks, nature preserves, contemplative spaces, cemeteries | | | | | | |
| F[1] | Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation | | | | | | |
| G[1] | Office\professional, government, medical\dental, commercial, retail, laboratories | | | | | | |
| H[1] | Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair | | | | | | |

ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table 3, Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate County decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.

UNACCEPTABLE—New construction or development shall not be undertaken.

(1) Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL

(2) For projects located within an Airport Influence Area of an adopted Airport Land Use Compatibility Plan (ALUCP), additional Noise Compatibility Criteria restrictions may apply as specified in the ALUCP.

Source: DPLU 2009a

## Table 2.11-10. Noise Standards

| Noise Standard | |
|---|---|
| 1 | The exterior noise level (as defined below in Noise Standard 4) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL. |
| 2 | The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL. |
| 3 | The exterior noise level standard for Categories D and G shall be 65 CNEL and the interior noise level standard shall be 50 dBA $L_{eq}$ (one hour average). |
| 4 | For single-family detached dwelling units, "exterior noise level" is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: *(i)* for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, *(ii)* for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; *(iii)* for lots over 10 acres in area, the exterior area shall include 1 acre. |
| 5 | For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which are provided for private or group usable open space purposes. "Private Usable Open Space" is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. "Group Usable Open Space" is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways. |
| 6 | For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use. |
| 7 | For noise sensitive land uses that are not occupied on a 24-hour basis (a portion of the day), interior and exterior noise standards may be based on shorter periods such as an 8-hour exposure level or the one-hour average sound level using a worst case noise scenario (the limiting case) |
| 8 | The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library. |
| 9 | For Categories E and F the exterior noise level standard shall not exceed the limit defined as "Acceptable" in Table 2.11-7 or an equivalent one-hour noise standard. |

Note: Exterior Noise Level compatibility guidelines for Land Use Categories A-H are identified in Table 2.11-9, Noise Compatibility Guidelines.
Source: DPLU 2009a

## Table 2.11-11. San Diego County Noise Ordinance Exterior Noise Standards

| Zone[1] | Limit One-Hour dBA[2] | Time Period |
|---|---|---|
| (1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92, R-V, and R-U with a density of less than 11 dwelling units per acre. | 50 dBA | 7:00 a.m. – 10:00 p.m. |
| | 45 dBA | 10:00 p.m. – 7:00 a.m. |
| (2) R-RO, R-C, R-M, S-86, RV, AND R-U with a density of 11 or more dwelling units per acre. | 55 dBA | 7:00 a.m. – 10:00 p.m. |
| | 50 dBA | 10:00 p.m. – 7:00 a.m. |
| (3) S-94, V4, and all commercial zones. | 60 dBA | 7:00 a.m. – 10:00 p.m. |
| | 55 dBA | 10:00 p.m. – 7:00 a.m. |
| (4) V1, V2 | 60 dBA | 7:00 a.m. – 7:00 p.m. |
| | 55 dBA | 7:00 p.m. – 10:00 p.m. |
| V1 | 55 dBA | 10:00 p.m. – 7:00 a.m. |
| V2 | 50 dBA | 10:00 p.m. – 7:00 a.m. |
| V3 | 70 dBA | 7:00 a.m. – 10:00 p.m. |
| | 65 dBA | 10:00 p.m. – 7:00 a.m. |
| (5) M-50, M-52, M-54 | 70 dBA | Anytime |
| (6) S-82, M-56, and M-58. | 75 dBA | Anytime |
| (7) S-88[3] | See below | |

[1] Refer to the San Diego County Zoning Ordinance for a list of zones represented by the abbreviations in this table. Online URL: http://www.sdcounty.ca.gov/dplu/zoning/index.html

[2] If the measured ambient noise level exceeds the applicable limit, the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating

[3] S-88 zones are Specific Planning Areas which allow different uses. The sound level limits that apply in an S-88 zone depend on the use being made of the property. The limits in subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

Notes: The sound levels limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive property is located.

A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Source: County 2008b. Effective January 9, 2009.

## Table 2.11-12. Land Uses within the Roadway Contours with the Potential to be Exposed to Noise Levels Exceeding Noise Compatibility Guidelines (in acres)

| Planning Area | Area within CNEL Contour (acres) | | | |
|---|---|---|---|---|
| | 60 dBA | 65 dBA | 70 dBA | 75 dBA |
| Alpine | 3,264 | 1,052 | 126 | 4 |
| Bonsall | 5,395 | 1,056 | 60 | 0 |
| Central Mountain | 1,841 | 2,308 | 0 | 0 |
| County Islands | 79 | 240 | 0 | 0 |
| Crest/Dehesa | 903 | 204 | 4 | 0 |
| Desert | 199 | 76 | 0 | 0 |
| Fallbrook | 5,074 | 1,681 | 149 | 0 |
| Jamul/Dulzura | 1,086 | 333 | 27 | 0 |
| Julian | 148 | 6 | 0 | 0 |
| Lakeside | 3,300 | 2,741 | 357 | 48 |
| Mountain Empire | 6,068 | 5,326 | 18 | 0 |
| North County Metro | 5,454 | 2,153 | 160 | 12 |
| North Mountain | 543 | 387 | 0 | 0 |
| Otay | 0 | 1,619 | 0 | 0 |
| Pala/Pauma Valley | 826 | 321 | 0 | 0 |
| Pendleton/De Luz | 139 | 0 | 4,173 | 0 |
| Rainbow | 2,001 | 338 | 58 | 0 |
| Ramona | 1,863 | 367 | 46 | 0 |
| San Dieguito | 924 | 705 | 0 | 0 |
| Spring Valley | 0 | 1,757 | 142 | 0 |
| Sweetwater | 727 | 1,304 | 104 | 0 |
| Valle De Oro | 308 | 1,618 | 89 | 0 |
| Valley Center | 3,112 | 247 | 21 | 0 |
| **Countywide Total** | **43,254** | **25,840** | **5,534** | **64** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.11-13. Designated Noise Sensitive Land Uses within the 60 dBA (CNEL) Railroad Contour

| CPA/Subregion | Railroad | Total Acres Per Planning Area |
|---|---|---|
| Mountain Empire | San Diego & Arizona Eastern Railway Desert Line | 1,561 |
| North County Metro | North County Transit District Sprinter Line | 53 |
| **Total Acres** | | **1,614** |

Note: Designated noise sensitive land uses are land uses designated under the General Plan Update that may accommodate development of noise sensitive land uses, primarily residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. The entire acreage would not necessarily be developed with noise sensitive land uses. Data has been rounded.
Source: DPLU GIS 2008

## Table 2.11-14. Ground-borne Vibration and Noise Standards[1]

| Land Use Category [2] | Definition | Ground-Borne Vibration Impact Levels (inches per second RMS) | | Ground-Borne Noise Impact Levels (dB re 20 micro Pascals) | |
|---|---|---|---|---|---|
| | | Frequent Events[3] | Occasional or Infrequent Events[4] | Frequent Events[3] | Occasional or Infrequent Events[4] |
| Category 1 | Buildings where low ambient vibration is essential for interior operations (research & manufacturing facilities with special vibration constraints). | 0.0018[5] | 0.0018[5] | Not Applicable | Not Applicable |
| Category 2[6] | Residences and buildings where people normally sleep (hotels, hospitals, residences, & other sleeping facilities). | 0.0040 | 0.010 | 35 dBA | 43 dBA |
| Category 3[6] | Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, & quiet offices). | 0.0056 | 0.014 | 40 dBA | 48 dBA |

RMS = root mean squared

(1) Vibration-sensitive equipment is not sensitive to ground-borne noise.

(2) There are some buildings, such as concert halls, TV and recording studios, and theaters that can be very sensitive to vibration and noise but do not fit into any of the three categories. Refer to Table 3 in the County of San Diego Guidelines for Determining Significance, Noise for acceptable levels of ground-borne vibration and noise for these various types of special uses.

(3) "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

(4) "Occasional or Infrequent Events" are defined as fewer than 70 vibration events per day. This combined category includes most commuter rail systems.

(5) This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research will require detailed evaluation to define acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

(6) For Categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the PPV exceeds one inch per second. Non-transportation vibration sources such as impact pile drivers or hydraulic breakers are significant when their PPV exceeds 0.1 inch per second.

Source: DPLU 2009c

## Table 2.11-15. Typical Levels of Groundborne Vibration

| Typical Vibration Sources | Human/Structural Response | Vibration Level (50 ft from Source) | |
|---|---|---|---|
| | | VdB[(1)] | in/sec RMS |
| Blasting from construction projects | Threshold, minor cosmetic damage to fragile buildings | 100 | 0.01 |
| Bulldozers and other heavy tracked construction equipment | Difficulty with tasks such as reading | 90-100 | 0.003-0.01 |
| Commuter rail and rapid transit, upper range | Residential annoyance, infrequent events (e.g., commuter rail) | 80-90 | 0.001-0.003 |
| Typical commuter rail, bus or truck over bump, typical rapid transit | Residential annoyance, frequent events (e.g., rapid transit) | 70-80 | 0.0003-0.001 |
| Bus or truck, typical | Limit for vibration sensitive equipment. Approximate threshold for human perception | 60-70 | 0.0001-0.0003 |
| Typical background vibration | Not detectable. | 50 | 0.00003 |

(1) RMS vibration velocity level in VdB relative to $10^{-6}$ inches/second
Source: FTA 2006

## Table 2.11-16. Increases in Noise Levels along Mobility Element Roadways

| Roadway | Segment | Existing Class | Existing CNEL[(1)] | Future Class | Future CNEL[(1)] | Change |
|---|---|---|---|---|---|---|
| Mission Road | Green Canyon Road to Triple Crown | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Gopher Canyon Road | Ormsby Road to I-15 | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Ormsby Road | East Vista to Gopher Canyon Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Buena Creek Road | South Santa Fe to Twin Oaks | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Monte Vista Road | Foothill Rd to Buena Creek Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Deer Springs Road | Marilyn Road to I-15 | C | 64 dBA | PA | 77 dBA | +13 dBA |
| Mountain Meadow Road | I-15 to North Broadway | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Pala Road | I-15 to Causer Canyon | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Cole Grade Road | Horse Creek Road to Fruitvale | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Lilac Road | Cypress Street to Sierra Rjo | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Valley Center Road | Lilac Road to Indian Creek Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| San Pasqual Valley | Birch Street to Bear Valley Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Bear Valley Road | Boyle Street to San Pasqual Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| SR-67 | Sycamore Road to Willow Street | C | 64 dBA | PA | 77 dBA | +13 dBA |
| Dehesa Road | Granite Hills Road to Sycuan Casino | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Campo Road | Jamacha Road to Melody Street | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Jamacha Boulevard | Whitestone Street to Campo Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| Otay Lakes Road | Wueste Road to Campo Road | C | 64 dBA | MA | 71 dBA | +7 dBA |
| I-15 | Countywide | 8F | 82 dBA | 10FHOV | 83 dBA | +1 dBA |

(1) Sound level at 100 feet from roadway centerline.
C = Collector, MA = Major Arterial, 8F = 8-Lane Freeway, 10FHOV= 10 Lane Freeway with HOV lanes, PA = Prime Arterial, dBA = A-weighted decibel, CNEL = Community Noise Equivalent Level, SR = State Route
Source: DPLU GIS 2008; PBS&J 2009

## Table 2.11-17. Roadway Segments New Roads (not in Existing Conditions)

| Roadway | Segment | Future Class | Future CNEL[(1)] |
|---|---|---|---|
| Foothill Tollway | I-5 to Christianos Road | 4F | 79 dBA |
| SR-125 | SR-54 to San Miguel Ranch Road | 8F | 82 dBA |
| SR-125 | Otay Valley Road to SR-905 | 8F | 82 dBA |
| SR-11 | SR-905 to border with Mexico | 4F | 79 dBA |
| SR 680 | Black Mountain Road to Dove Canyon | MA | 71 dBA |

(1) Sound level at 100 feet from roadway centerline.
MA = Major Arterial, 4F = 4-Lane Freeway, 8F = 8-Lane Freeway, dBA = A-weighted decibel, CNEL = Community Noise Equivalent Level
Source: DPLU GIS 2008; PBS&J 2009

## Table 2.11-18. Typical Construction Equipment Noise Levels

| Equipment | Typical Noise Level (dBA) at 50 feet from source |
|---|---|
| Air Compressor | 81 |
| Backhoe | 80 |
| Compactor | 82 |
| Concrete Mixer | 85 |
| Crane, Derrick | 88 |
| Dozer | 85 |
| Grader | 85 |
| Jack Hammer | 88 |
| Loader | 85 |
| Paver | 89 |
| Pile-driver (Impact) | 101 |
| Pump | 76 |
| Roller | 74 |
| Scraper | 89 |
| Truck | 88 |

Source: EPA 1971

## Table 2.11-19. Designated Noise Sensitive Land Uses within the 60 dBA Annual CNEL Noise Contour of a Public Use Airport

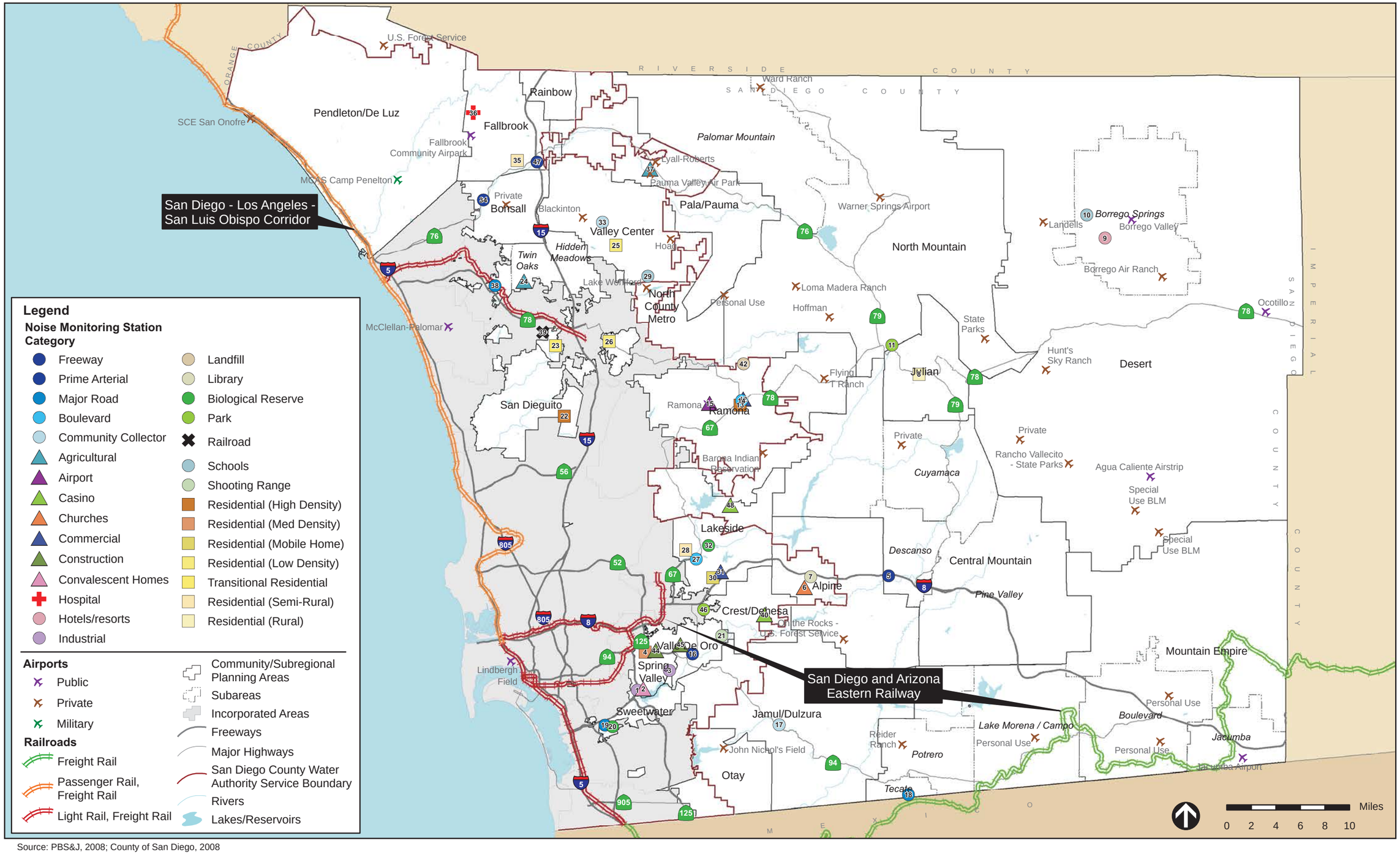
| CPA or Subregion | Airport | Acres |
|---|---|---|
| Desert | Borrego Airport | 152 |
| Lakeside | Gillespie Field Airport | <1 |
| Ramona | Ramona Airport | 1,497 |
| **Countywide Total** | | **1,650** |

Note: Designated noise sensitive land uses are land uses designated under the General Plan Update that may accommodate development of noise sensitive land uses, primarily residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. The entire acreage would not necessarily be developed with noise sensitive land uses. Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.11-20. Designated Noise Sensitive Land Uses within Two Miles of a Private Airstrip

| CPA/Subregion | Airport(s) | Acres |
|---|---|---|
| Alpine | On the Rocks - U.S. Forest Service | 6,414 |
| Central Mountain | Flying T Ranch | 76 |
| Desert | Agua Caliente Airstrip, Borrego Air Ranch, Hunt's Sky Ranch, Ocotillo, Rancho Vallecito - State Parks, Special Use BLM | 54,228 |
| Jamul/Dulzura | John Nichol's Field, On the Rocks - U.S. Forest Service, Reider Ranch | 2,871 |
| Lakeside | Barona Indian Reservation | 238 |
| Mountain Empire | Jacumba Airport, Personal Use, Reider Ranch, Special Use BLM | 37,820 |
| North County Metro | Blackinton, Lake Wohlford, Personal Use | 6,226 |
| North Mountain | Hoffman, Hunt's Sky Ranch, Loma Madera Ranch, Personal Use, Ward Ranch, Warner Springs Airport, Lyall-Roberts | 33,500 |
| Otay | Brown Field, John Nichol's Field | 7,496 |
| Pala/Pauma Valley | Lyall-Roberts, Pauma Valley Air Park, Personal Use | 17,695 |
| Ramona | Barona Indian Reservation, Flying T Ranch, Hoffman | 16,698 |
| Valley Center | Blackinton, Lake Wohlford, Lyall-Roberts, Pauma Valley Air Park | 12,153 |
| **Total** | | **195,415** |

Note: Designated noise sensitive land uses are land uses designated under the General Plan Update that may accommodate development of noise sensitive land uses, primarily residential uses, public and private educational facilities, hospitals, convalescent homes, hotels/motels, daycare facilities, and passive recreational parks. The entire acreage would not necessarily be developed with noise sensitive land uses. Data has been rounded to nearest whole number.
Source: DPLU GIS 2008




**Legend**

**Noise Monitoring Station Category**

- Freeway
- Prime Arterial
- Major Road
- Boulevard
- Community Collector
- Agricultural
- Airport
- Casino
- Churches
- Commercial
- Construction
- Convalescent Homes
- Hospital
- Hotels/resorts
- Industrial
- Landfill
- Library
- Biological Reserve
- Park
- Railroad
- Schools
- Shooting Range
- Residential (High Density)
- Residential (Med Density)
- Residential (Mobile Home)
- Residential (Low Density)
- Transitional Residential
- Residential (Semi-Rural)
- Residential (Rural)

**Airports**

- Public
- Private
- Military

**Railroads**

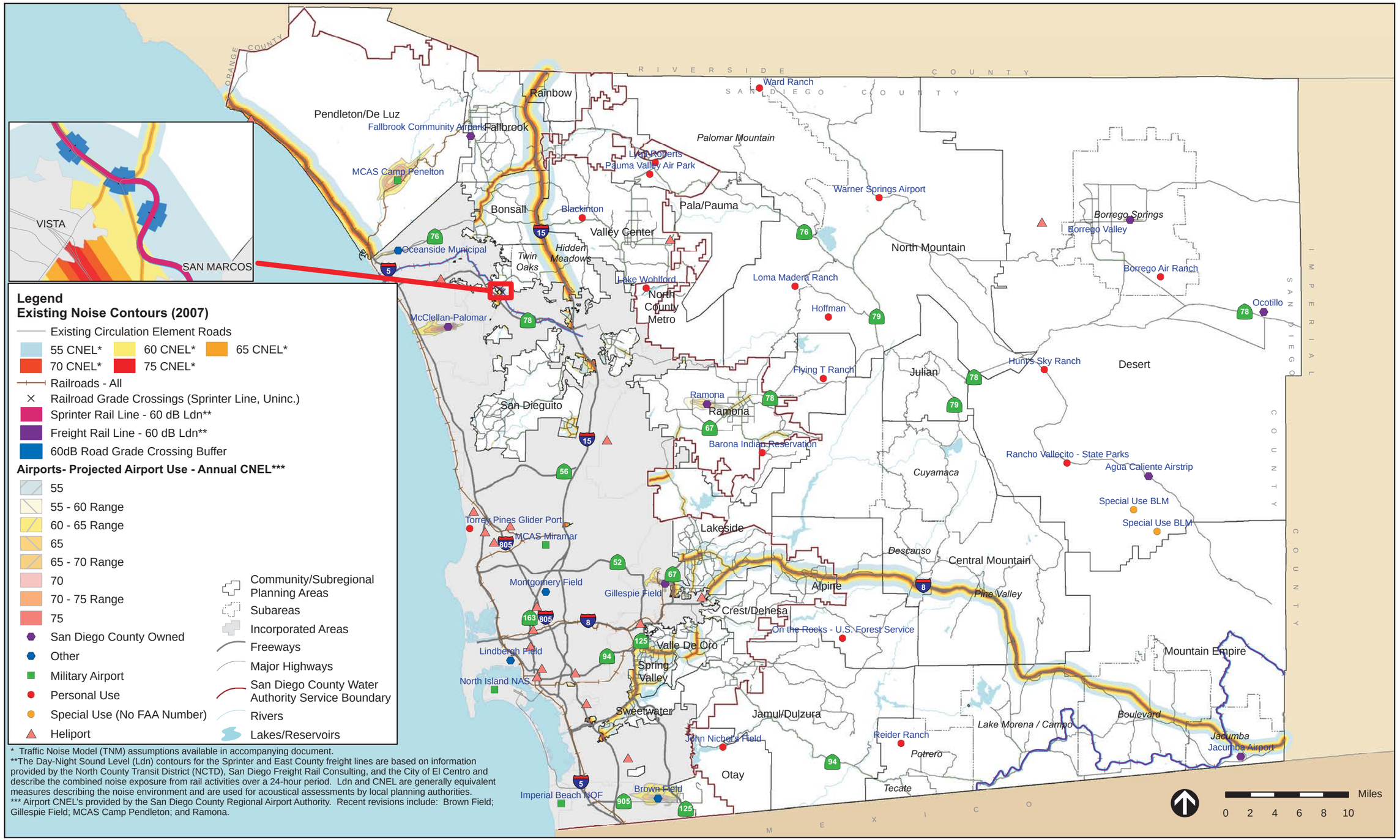
- Freight Rail
- Passenger Rail, Freight Rail
- Light Rail, Freight Rail

- Community/Subregional Planning Areas
- Subareas
- Incorporated Areas
- Freeways
- Major Highways
- San Diego County Water Authority Service Boundary
- Rivers
- Lakes/Reservoirs

Source: PBS&J, 2008; County of San Diego, 2008

## COMMUNITY NOISE SURVEY LOCATIONS

## FIGURE 2.11-1




**Legend**
**Existing Noise Contours (2007)**

- Existing Circulation Element Roads
- 55 CNEL*
- 60 CNEL*
- 65 CNEL*
- 70 CNEL*
- 75 CNEL*
- Railroads - All
- Railroad Grade Crossings (Sprinter Line, Uninc.)
- Sprinter Rail Line - 60 dB Ldn**
- Freight Rail Line - 60 dB Ldn**
- 60dB Road Grade Crossing Buffer

**Airports- Projected Airport Use - Annual CNEL*****

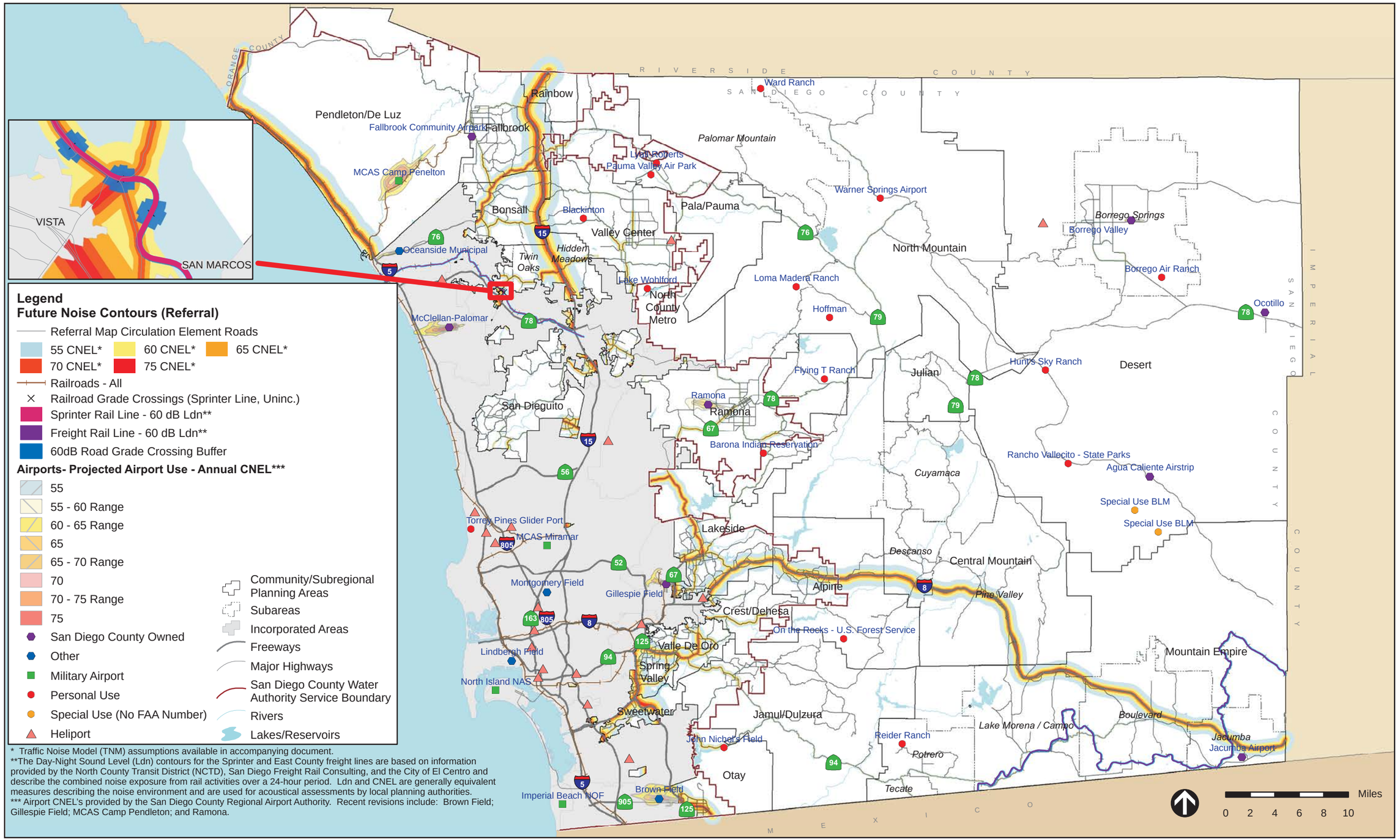
- 55
- 55 - 60 Range
- 60 - 65 Range
- 65
- 65 - 70 Range
- 70
- 70 - 75 Range
- 75
- San Diego County Owned
- Other
- Military Airport
- Personal Use
- Special Use (No FAA Number)
- Heliport
- Community/Subregional Planning Areas
- Subareas
- Incorporated Areas
- Freeways
- Major Highways
- San Diego County Water Authority Service Boundary
- Rivers
- Lakes/Reservoirs

* Traffic Noise Model (TNM) assumptions available in accompanying document.
**The Day-Night Sound Level (Ldn) contours for the Sprinter and East County freight lines are based on information provided by the North County Transit District (NCTD), San Diego Freight Rail Consulting, and the City of El Centro and describe the combined noise exposure from rail activities over a 24-hour period. Ldn and CNEL are generally equivalent measures describing the noise environment and are used for acoustical assessments by local planning authorities.
*** Airport CNEL's provided by the San Diego County Regional Airport Authority. Recent revisions include: Brown Field; Gillespie Field; MCAS Camp Pendleton; and Ramona.

Source: PBS&J, 2008; County of San Diego, 2008

## EXISTING NOISE CONTOURS

FIGURE 2.11-2




**Legend**
**Future Noise Contours (Referral)**

- Referral Map Circulation Element Roads
- 55 CNEL*
- 60 CNEL*
- 65 CNEL*
- 70 CNEL*
- 75 CNEL*
- Railroads - All
- Railroad Grade Crossings (Sprinter Line, Uninc.)
- Sprinter Rail Line - 60 dB Ldn**
- Freight Rail Line - 60 dB Ldn**
- 60dB Road Grade Crossing Buffer

**Airports- Projected Airport Use - Annual CNEL*****

- 55
- 55 - 60 Range
- 60 - 65 Range
- 65
- 65 - 70 Range
- 70
- 70 - 75 Range
- 75
- San Diego County Owned
- Other
- Military Airport
- Personal Use
- Special Use (No FAA Number)
- Heliport
- Community/Subregional Planning Areas
- Subareas
- Incorporated Areas
- Freeways
- Major Highways
- San Diego County Water Authority Service Boundary
- Rivers
- Lakes/Reservoirs

* Traffic Noise Model (TNM) assumptions available in accompanying document.
**The Day-Night Sound Level (Ldn) contours for the Sprinter and East County freight lines are based on information provided by the North County Transit District (NCTD), San Diego Freight Rail Consulting, and the City of El Centro and describe the combined noise exposure from rail activities over a 24-hour period. Ldn and CNEL are generally equivalent measures describing the noise environment and are used for acoustical assessments by local planning authorities.
*** Airport CNEL's provided by the San Diego County Regional Airport Authority. Recent revisions include: Brown Field; Gillespie Field; MCAS Camp Pendleton; and Ramona.

Source: PBS&J, 2008; County of San Diego, 2008

**FUTURE NOISE CONTOURS** **FIGURE 2.11-3**

# 2.12 Population and Housing

This section reviews existing population, housing, and employment conditions in unincorporated San Diego County and surrounding areas, provides an assessment of the current and forecasted population in the County and describes the forecasted growth in the County's population. Changes in population, employment, and housing demand can have direct social and economic effects as well as indirect environmental impacts. According to CEQA, social and economic effects should be considered in an EIR only to the extent that they create adverse impacts on the physical environment. According to Section 15382 of the CEQA Guidelines, "An economic or social change by itself shall not be considered a significant impact on the environment." The discussion of existing population and housing conditions, policies and regulations provided below is based on the County of San Diego General Plan, Housing Element Background Report (DPLU 2008b), U.S. Census Bureau 2000 Census information (Census 2000), and data from the SANDAG Data Warehouse (SANDAG 2008c). Refer to Section 1.13, County Population Forecast Model and Projected Growth, regarding the differences between the SANDAG population forecasts and how they compare to other data produced for the General Plan Update.

A summary of the population and housing impacts identified in Section 2.12.3 is provided below.

**Population and Housing Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Population Growth | Less Than Significant | Less Than Significant | Less Than Significant |
| 2 | Displacement of Housing | Less Than Significant | Less Than Significant | Less Than Significant |
| 3 | Displacement of People | Less Than Significant | Less Than Significant | Less Than Significant |

## 2.12.1 Existing Conditions

This section of the EIR consists of an analysis of demographic, housing, and employment data that helps identify and illustrate the housing needs in the unincorporated area.

### *2.12.1.1 Population Trends*

Population in the unincorporated area has experienced growth since 1990, and is forecasted to continue to grow in the next few decades. However, growth varies among CPAs and Subregions, as described below. As discussed in previous sections of the EIR, the unincorporated area of the County is divided into 24 planning areas. Fifteen of the planning areas are CPAs and nine areas are Subregions. Pepper Drive/Bostonia will be merged into the Lakeside CPA with the adoption of the General Plan Update to reduce the total to 23 planning areas. For the purpose of this EIR, Pepper Drive/Bostonia is included in Lakeside CPA. All impact analysis regarding Lakeside includes Pepper Drive/Bostonia.

**Population Growth**

In 2008, the unincorporated area of the County was estimated by SANDAG to contain a population of 491,764, comprising approximately 16 percent of the total County population. Between 2000 and 2008, population in the unincorporated area grew by 11 percent, from 442,919, which is slightly lower than the countywide growth rate of 12 percent. As a result, the unincorporated area's portion of the County population has remained at approximately 16 percent between 2000 and 2008. Included in the population of the unincorporated area are several areas that provide housing for residents but are not subject to County land use authority. There are 18 Native American reservations within the CPAs and Subregions of the unincorporated County. United States Marine Corps (USMC) Base Camp Pendleton, a large military base covering over 125,000 acres, encompasses part of the Pendleton/De Luz CPA; however, most of this land is under the jurisdiction of the federal government. In addition, the vast majority of the population in the Otay CPA comes from three correctional facilities: East Mesa Detention Facility, George F. Bailey Detention Facility, and Donovan Correctional Facility.

Table 2.12-1 shows population by CPA or Subregion. In 2008, the CPAs and Subregions with the highest populations included Fallbrook, Lakeside, North County Metro, Spring Valley, Ramona, and Valle de Oro. Pendleton/De Luz also has a relatively large population but group quarters at Camp Pendleton (18,000 beds in 2008) account for nearly half of the total population. CPAs with the lowest populations in 2008 included County Islands, Rainbow, North Mountain, and Julian. CPAs that experienced the highest percentage of population growth between 2000 and 2008 were San Dieguito (144 percent) and Valley Center (18 percent). However, some planning areas experienced significant decreases in population, such as the North Mountain Subregion (-15 percent).

**Forecasted Population**

Table 2.12-2 shows the forecasted population in the unincorporated area at 10-year increments between 2000 and 2030 as forecasted by SANDAG in 2008. By 2030, SANDAG forecasts that the population in the unincorporated area will increase to over 723,392 people or 63 percent growth compared to year 2000 population levels. CPAs and Subregions that are likely to experience the highest percentage of population growth between 2000 and 2030 include Desert (481 percent), Mountain Empire (155 percent), North Mountain (180 percent), San Dieguito (187 percent), and Valley Center (162 percent). Several CPAs are forecasted to experience limited population growth. These include Valle de Oro (17 percent) and Spring Valley (15 percent).

## *2.12.1.2 Household Profile*

This section will discuss the different types of households, household tenure, and household income.

**Household Type and Size**

There are two types of households: family and non-family. Family households generally include married couples with and without children and non-family households generally describe single-person households, including elderly persons, and multi-person households not related by birth, marriage, or adoption. Table 2.12-3 shows that the unincorporated area has 143,871 households in 2000, representing a 13 percent increase from 1990. Based on U.S. Department

of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS) dataset (HUD 2006) and SANDAG Data Warehouse, 2010 Forecast (SANDAG 2008c), the unincorporated area is forecasted to have 163,272 households by 2010. This is an increase of approximately 14 percent from 2000. The vast majority (78 percent) of the households in 2000 were families. From 1990 to 2000, the number of married couples without children increased almost 13 percent, while married couples with children showed little change. The proportion of single-person households increased nearly 25 percent, which included a nearly 30 percent increase in elderly persons living alone. The combined effect of these household trends resulted in an overall decrease in the average household size from 2.92 to 2.89 persons per household between 1990 and 2000.

**Household Tenure and Occupancy**

Tenure refers to the type of occupancy, whether a unit is owner-occupied or renter-occupied. Furthermore, an occupied housing unit is equivalent to a household. Since the majority of the housing units in the unincorporated area are single-family homes, the tenure split of the occupied units is primarily owner-occupied (70 percent), as shown in Table 2.12-4. In comparison, region-wide, only 58 percent of the occupied units were owner-occupied.

In most cases, the tenure split in individual CPAs reflects the composition of the housing stock. CPAs with high proportions of single-family homes have high proportions of owner-occupants. CPAs with high proportions of multi-family housing and mobile homes have high proportions of renter-occupants. However, County Islands is an exception, where a large proportion of the single-family homes are actually used as rentals. According to the 2006 HUD data, renter-occupied households had a higher proportion (58 percent) of Extremely Low, Very Low, and Low Income households, described below, compared to owner-occupied households (24 percent).

**Household Income**

Income level is considered a useful indicator of the housing market, because income levels influence the range of housing prices within a community and the ability of households to afford housing. As household income decreases, the number of households paying a disproportionate amount (more than 30 percent) of their income on housing increases. Consequently, this often leads to an increase in overcrowding and inadequate living conditions.

For planning and funding purposes, the State Department of Housing and Community Development (State HCD) categorizes households into five income groups based on the County Area Median Income (AMI):

- Extremely Low Income – at or below 30 percent AMI
- Very Low Income – 31 to 50 percent of AMI
- Low Income – 51-80 percent of AMI
- Moderate Income – 81 to 120 percent of AMI
- Above Moderate Income – greater than 120 percent of AMI

Table 2.12-5 presents household income for San Diego County and the unincorporated region from the 2000 Census and HUD data. Of the total households in the unincorporated area, approximately 8 percent were classified as Extremely Low Income; 10 percent were classified

as Very Low Income; 16 percent were classified as Low Income; and 67 percent were classified as Moderate or Above Moderate Income.

### *2.12.1.3 Residents with Special Needs*

Certain special needs groups may have a significant impact on housing demand. Due to the shortage of affordable housing, these groups often compete for the same housing. Identifying residents with special needs is necessary to understanding regional housing needs and devising appropriate programs and actions. The eight special needs groups are elderly persons, large households, single-parent households, persons with disabilities, farmworkers, homeless persons, military personnel, and students.

**Elderly**

Elderly persons are considered special needs residents because they may not be able to care for themselves, desire to live alone, have difficulty maintaining their homes, or prefer smaller homes or rental housing. Many elderly persons are also living on fixed incomes, which may require spending increasingly larger proportions of income on housing, health care, and food.

According to 2008 SANDAG data, approximately 12 percent of the residents in the unincorporated area were age 65 and older in 2008 (SANDAG 2008c). According to 2000 Census data, approximately 31,258 households in the unincorporated area were headed by elderly persons in 2000 and the majority (88 percent) lived in owner-households. Compared to other household types, a larger proportion of elderly households, particularly renter-households, were impacted by lower incomes.

The elderly population is expected to increase in the next couple of decades. Associated with this change is an increase in a variety of senior housing needs, which include retirement communities, independent living, assisted living and nursing homes, shared housing, and other housing-related services.

**Large Households**

A large household is defined as one with more than five members. Large households are considered a special needs group because of the general lack of adequately sized, affordable housing. On a per-capita basis, large households also tend to have lower disposable incomes for housing compared to other household types. According to the 2000 Census data, approximately 12 percent of households in the unincorporated County area in 2000 were considered to be large households. Among these households, the majority (74 percent) were owner-occupied households. After elderly households, large households were also more impacted by lower incomes compared to other household types.

**Single-Parent Households**

Single-parent households require special consideration and assistance because they tend to have lower incomes and a greater need for affordable day care, health care, and other related services. Single female-headed households are of particular concern because they tend to earn lower wages. Table 2.12-6 shows that in 2000, approximately 14 percent of the total

households were single-parent households. Specifically, 7 percent of the total households in the unincorporated area were female-headed households with children.

Furthermore, 12 percent of the male-headed households with children and 25 percent of the female-headed households with children were living below the poverty line.

**Persons with Disabilities**

The U.S. Census defines disability as a long-lasting physical, mental, or emotional condition (Census 2000). Affordability, design, location, and discrimination often limit the supply of housing for persons with disabilities. According to the 2000 Census, 66,138 persons with disabilities were residing in the unincorporated area, representing almost 15 percent of the total population. In comparison, within the entire County of San Diego, approximately 16 percent of the population is considered to be disabled (Census 2000).

**Farmworkers**

As traditionally defined, farmworkers are persons whose primary incomes are earned through permanent or seasonal agricultural labor. Due to the year-round agricultural production and the relatively low incomes of farmworker households, affordable rental housing for farmworkers constitutes a critical housing need in the unincorporated area. According to the 2000 Census, approximately 36 percent of the region's agricultural workforce was employed in the unincorporated area.

Determining the actual number of farmworkers in a region is difficult due to the various definitions used by government agencies. According to the 2000 Census, 1,812 workers in the unincorporated area reported farming as their occupation (28 percent of the region's agricultural workforce). CPAs and Subregions with the highest level of agricultural activities included: Fallbrook, North County Metro, Pala/Pauma Valley, Ramona, and Valley Center. Farmworkers accounted for 1 percent of the employed population of the unincorporated area. Countywide, 0.5 percent of employment was related to agriculture. Although the 2000 Census shows the countywide number of farmworkers as 6,378, estimates provided by the State Employment Development Department (EDD) placed the number of farmworkers at 11,400 in 2000, which declined to approximately 10,400 as of November 2006 (EDD 2008a). This discrepancy can be attributed to those workers who are employed within the County but reside outside the County in areas such as Imperial County or southern Orange County.

**Homeless Persons**

A person is considered homeless if he or she is not imprisoned and:

- Lacks a fixed, regular, and adequate night-time residence; or
- Has a primary night-time residence that is:
  - A supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing);
  - An institution that provides a temporary residence for individuals intended to be institutionalized; or

- A public or private place not designed for, or ordinarily used as, a regular sleeping accommodation.

The Regional Task Force on the Homeless (RTFH) is a non-profit organization specializing in disseminating homeless information, sponsored by the City and County of San Diego and other local jurisdictions. The RTFH identified 1,037 rural homeless persons in the unincorporated area in 2006. In 2008, the RTFH published the Regional Homeless Profile (RHP), an enumeration of the homeless population in the region, which identified an increase of 27 percent in homeless persons in the geographic region outside the City of San Diego, including the unincorporated area of the County (RTFH 2008). These homeless persons are primarily farmworkers and day laborers.

The two types of housing commonly developed for and used by homeless persons are transitional housing and emergency shelters. Transitional housing is a type of supportive housing used to facilitate the movement of homeless individuals and families to permanent housing. Transitional housing offers case management and support services to return people to independent living, usually between six and 24 months. An emergency shelter is a facility that provides basic shelter and support services to homeless individuals and families on a short-term basis. Most shelter and housing facilities for the homeless within the County are located in the City of San Diego and other more urbanized communities where public transportation is easily accessible. Homeless shelters and housing facilities serving the unincorporated area include 48 beds in four emergency shelters and 206 beds in four transitional housing facilities.

**Military Personnel**

The presence of military personnel in the region adds to the demand for low-cost rental housing. Although the need is partially met by the supply of military housing, the demand outweighs the supply. The majority of the military personnel in the unincorporated area are stationed at USMC Camp Pendleton, located just north of the City of Oceanside, with approximately 37,000 active duty Marine and Navy personnel. A smaller military population in the unincorporated area is also stationed at the Naval Weapons Station in Fallbrook. Currently, USMC Camp Pendleton offers a total of 6,195 family housing units on base (USMC 2008). In addition to family housing, USMC Camp Pendleton also offers approximately 18,000 beds in group quarters. Based on the number of housing units provided on base, approximately 13,000 families occupy housing off-base. A portion of these families live in the Fallbrook CPA; however, many seek housing in the neighboring cities of San Clemente, Oceanside, Vista, Carlsbad, San Marcos, and Escondido (USMC 2008).

**Students**

The need for student housing is another unique factor that affects housing demand in the San Diego region. Typically, students have low incomes, are transient, and require affordable housing within easy commuting distances from campus. Although the majority of colleges and universities provide on-campus housing, they usually cannot accommodate the entire student population. Students not housed on campus must seek rental/shared housing opportunities in nearby areas.

San Diego State University, the largest university in the region, has an enrollment of approximately 33,000 students, with on-campus housing that accommodates 3,136 students. The University of California at San Diego has an enrollment of approximately 27,000 students

and provides on-campus housing for 4,290 students. Similarly, the University of San Diego has an enrollment of 7,000 students, but provides on-campus housing for only 2,400 students. Regionally, smaller universities and colleges also have similar on-campus housing shortages. Although most major universities and colleges are located within incorporated communities, off-campus student housing needs impact the demand for affordable rental housing in the unincorporated area. Furthermore, the lack of affordable housing influences the choice students make after graduation, often with a detrimental effect to the region's labor force and economy. College graduates provide a pool of skilled labor that is vital to the economic well being of the region. However, the lack of affordable housing options may lead to their departure to other less expensive housing markets.

### *2.12.1.4 Housing Profile*

The Census Bureau defines a housing unit as a house, apartment, mobile home, group of rooms, or single room that is occupied (or if vacant, is intended for occupancy) as a separate living quarter. Separate living quarters are those in which the occupants live separately from any other individuals in the building and have direct access from outside the building or through a common hall.

**Housing Types and Growth Trends**

As shown in Table 2.12-7, the majority of housing units in the unincorporated area are single-family homes (74 percent), which is a higher percentage than for the region as a whole. Multi-family homes represent 19 percent of the housing stock, which is about half of the regional proportion. Mobile homes and other housing types represent a significant housing option in the unincorporated area, representing 7 percent of the housing stock, which is approximately double that of the regional proportion. According to the 2008 SANDAG Data, 12,374 mobile homes and other housing types are located in the unincorporated area. SANDAG defines a mobile home or other home as mobile homes in mobile home parks, boats, and other housing not elsewhere classified. According to County building permit data, 578 mobile homes were constructed in the unincorporated area between January 2003 and November 2006.

Due to differences in community character, as well as unique constraints and opportunities, several CPAs have higher proportions of multi-family housing compared to other parts of the unincorporated area. These include the Lakeside, Spring Valley, and Valle de Oro CPAs. In rural/semi-rural communities where there is a lack of sewer system, mobile homes on septic systems become a viable housing option.

Between 1990 and 2000, housing stock in the unincorporated area increased by 12 percent, almost two percentage points higher than the San Diego region as a whole, as shown in Table 2.12-8. Based on SANDAG forecasts, growth in housing stock in the unincorporated area is expected to slow, with a 13 percent increase anticipated between 2000 and 2010, similar to the forecasted 13 percent increase for the region during the same period.

**Housing Cost**

The cost of housing often correlates with the extent of housing problems experienced by lower and moderate income households.

### For-Sale Housing Market

Housing costs in the unincorporated communities vary significantly. In general, communities in the northern part of the County closer to the coast had higher home prices, compared to communities farther east. As shown in Table 2.12-9, in 2007 the median values of homes ranged from $332,000 in Julian to $834,500 in Bonsall. Home prices also vary significantly by type of housing. Median prices for condominium units were below $400,000 while single-family homes were sold at much higher prices. Mobile homes are generally sold at prices below $100,000, as shown in Table 2.12-10. Between 2005 and 2007, median home prices in San Diego generally decreased with most communities experiencing lower housing prices due to slowing of the housing market.

### Rental Housing Market

Information on rental rates in the unincorporated area was obtained through review of rental listings and is presented in Table 2.12-11. Given the suburban and semi-rural character of some CPAs, rental housing has limited availability. Apartments and second units/granny flats (such as guesthouses and cottages) represent the most affordable rental options. These are usually small units with one or two bedrooms, appropriate for small households, including seniors. In comparison, large units, typically comprised of townhomes or single-family homes, typically command significantly higher rents.

## Issues Affecting Housing Availability

### Age of Housing and Substandard Housing Conditions

Housing age is frequently used as an indicator of housing condition. In general, residential structures over 30 years of age require minor repairs and modernization improvements, while units over 50 years of age are likely to require major rehabilitation such as roofing, plumbing, and electrical system repairs. A unit is generally deemed to have exceeded its useful life after 70 years of age.

According to the 2000 Census, approximately 30 percent of the overall housing stock in the unincorporated area was built prior to 1970 (greater than 30 years old), as shown in Table 2.12-12. Three percent (4,895 units) of the housing stock was more than 70 years old (SANDAG 2008c). In addition, according to the County DPLU, 1,101 units in the unincorporated area lacked complete plumbing facilities and 1,117 units lacked complete kitchen facilities (DPLU 2008b). These units may potentially require substantial rehabilitation.

### Overcrowding

Overcrowding is typically a combined effect of high housing costs, low incomes, and insufficient supply of adequately sized units at affordable rates. In California, overcrowding is defined as a housing unit occupied by more than one person per room (including bedrooms, living rooms, dining rooms, but excluding bathrooms, kitchens, porches, and hallways). Severe overcrowding is defined as a housing unit occupied by more than 1.5 persons per room.

Overall, 11,624 occupied units (8 percent of all households) in the unincorporated area were considered overcrowded in 2000, inclusive of 4 percent that were considered severely overcrowded, as shown in Table 2.12-13. Overcrowding tends to affect renter-households

disproportionately, with 17 percent of all renter-households in the unincorporated area being overcrowded compared to 4 percent of owner-households. In general, overcrowding and severe overcrowding was less prevalent in the unincorporated area (12 percent) than Countywide (19 percent).

**Cost Burden**

Cost burden, also known as "overpayment," is defined as a household paying more than 30 percent of its gross household income on housing costs, including utilities, taxes, and insurance. Overall, 32 percent of the households in the unincorporated area experienced housing cost burden in 2000, as shown in Table 2.12-14. While overall, owner-households and renter-households were similarly impacted by cost burden, the income distributions of the impacted households were very different. For owner-households, the impacted households were primarily moderate or above moderate incomes. In contrast, the majority of the impacted renter-households were lower incomes.

### *2.12.1.5 Employment*

Analyzing employment growth is useful in projecting housing demand. In the San Diego County region, employment growth slightly outpaced population growth during the last 15 years. According to the State EDD, employment has grown at a higher rate than population. Between 1990 and 2000, civilian employment in San Diego County increased 14 percent while population increased by 13 percent. Between 2000 and 2007, civilian employment increased 11 percent while population increased by five percent between 2000 and 2006. The employment base in the San Diego region is forecasted to increase another eight percent between 2007 and 2014 while population is forecasted to increase by 14 percent from 2000 to 2010 and by 11 percent from 2010 to 2020 (EDD 2008b). Table 2.12-15 shows the percentage of unincorporated area employees in different industries as compared to the entire San Diego County.

## 2.12.2 Regulatory Framework

### *2.12.2.1 Federal*

**Federal Fair Housing Laws**

Several federal laws are in place that prohibit discrimination as it relates to housing. These laws are summarized below, based on information from the Leadership Conference on Civil Rights Education Fund (LCCREF 2008).

**Title VI of the Civil Rights Act of 1964**

Title VI prohibits discrimination on the basis of race, color, or national origin in programs receiving federal financial assistance.

**Title VIII of the Civil Rights Act of 1968**

Title VIII of the Civil Rights Act, the Fair Housing Act, prohibits discrimination in the sale, rental, and financing of dwellings, and in other housing-related transactions, based on race, color, national origin, religion, sex, familial status (including children under the age of 18 living with

parents of legal custodians, pregnant women, and people securing custody of children under the age of 18), and handicap (disability).

**Section 504 of the Rehabilitation Act of 1973**

Section 504 prohibits discrimination based on disability in any program receiving federal financial assistance.

**Section 109 of Title I of the Housing and Community Development Act of 1974**

Section 109 prohibits discrimination on the basis of race, color, national origin, sex or religion in programs and activities receiving financial assistance from HUD's Community Development and Block Grant Program.

**Title II of the Americans with Disabilities Act of 1990**

Title II prohibits discrimination based on disability in programs, services, and activities provided or made available by public entities. HUD enforces Title II when it relates to State and local public housing, housing assistance and housing referrals.

**Architectural Barriers Act of 1968**

The Architectural Barriers Act requires that buildings and facilities designed, constructed, altered, or leased with certain federal funds after September 1969 must be accessible to and useable by handicapped persons.

**Age Discrimination Act of 1975**

The Age Discrimination Act prohibits discrimination on the basis of age in programs receiving federal financial assistance.

**Executive Order 11063**

Executive Order 11063 prohibits discrimination in the sale, leasing, rental, or other disposition of properties and facilities owned or operated by the federal government or provided with federal funds.

**Executive Order 11246**

Executive Order 11246, as amended, bans discrimination in federal employment because of race, color, religion, sex, or national origin.

**Executive Order 12892**

Executive Order 12892, as amended, requires federal agencies to affirmatively further fair housing in their programs and activities, and provides that the Secretary of HUD will be responsible for coordinating the effort. The Order also establishes the President's Fair Housing Council, which will be chaired by the Secretary of HUD.

**Executive Order 12898**

Executive Order 12898 requires that each federal agency conduct its program, policies, and activities that substantially affect human health or the environment in a manner that does not exclude persons based on race, color, or national origin.

**Executive Order 13166**

Executive Order 13166 eliminates, to the extent possible, limited English proficiency as a barrier to full and meaningful participation by beneficiaries in all federally assisted and federally conducted programs and activities.

**Executive Order 13217**

Executive Order 13217 requires federal agencies to evaluate their policies and programs to determine if any can be revised or modified to improve the availability of community-based living arrangements for persons with disabilities.

### *2.12.2.2 State*

**California Planning and Zoning Law**

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law (Sections 65000 through 66499.58 of the Government Code). Under State planning law, each City and County must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

**State Housing Element Law**

Pursuant to Section 65580 of the Government Code, a Housing Element of a General Plan must contain local commitments to:

- Provide sites with appropriate zoning and development standards and with services and facilities to accommodate the jurisdiction's Regional Housing Needs Assessment (RHNA) for each income level. The RHNA is the only population and/or housing requirement that applies to the General Plan Update. The County's RHNA is 12,358 residential units for the 2005 – 2010 Housing Element Cycle.
- Assist in the development of adequate housing to meet the needs of lower and moderate income households.
- Address, and where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for persons with disabilities.
- Conserve and improve the condition of the existing affordable housing stock.

- Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve assisted housing developments for lower income households.

State Housing Element law mandates specific topics and issues that must be addressed in the Housing Element. These include:

- An analysis of population and employment trends, documentation of projections, and quantification of existing and projected housing needs for all income levels.
- An analysis and documentation of household characteristics, such as the age of housing stock, tenancy type, overcrowded conditions, and the level of payment compared to ability to pay.
- An analysis and documentation of special needs, such as female-headed households, homeless individuals, persons with disabilities, large households, farmworkers, and the elderly.
- A regional share of the total regional housing need for all income categories.
- An inventory of land suitable for residential development, including vacant land and infill/redevelopment opportunities. This analysis also looks at potential residential sites and their accessibility to adequate infrastructure and services.
- Identifying actual and potential governmental and non-governmental constraints that could potentially impede the maintenance, improvement, and development of housing for all income groups.
- Identifying and analyzing opportunities for energy conservation in residential developments.
- An inventory of at-risk affordable units that have the possibility of converting to market rate.
- A statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the improvement, maintenance, and development of housing.

State law requires that adequate opportunity for participation be solicited from all economic segments of the community towards preparation of the Housing Element. Specifically, the jurisdiction must reach out to lower and moderate income persons and persons with special needs. Preparation of the Housing Element must also be coordinated with other local jurisdictions within the regional housing market area.

### Article 34

Article 34 of the California Constitution requires a majority vote of the electorate to approve the development, construction, or acquisition by a public body of any “low rent project” within that jurisdiction. In other words, for any project to be built and/or operated by a public agency where at least 50 percent of the occupants are low income and rents are restricted to affordable levels, the jurisdiction must seek voter approval (Article 34 authority).

**California Building Standards Code**

In 2001, the State of California consolidated the Uniform Building, Plumbing, Electrical, and Mechanical codes into the California Building Standards Code, which is contained in Title 24 of the California Code of Regulations. The California Building Standards Code contains eleven parts: Electrical Code, Plumbing Code, Administrative Code, Mechanical Code, Energy Code, Elevator Safety Construction Code, Historical Building Code, Fire Code, and the Code for Building Conservation Reference Standards Code. These codes promote public health and safety and ensure that safe and decent housing is constructed in the County unincorporated area. The codes serve to protect residents from hazards and risks, and are not considered to be undue constraints to housing production. The 2007 California codes became effective January 2008.

### *2.12.2.3 Local*

**San Diego County Board of Supervisors (BOS) Policy A-68, Expediting Permit Processing for Lower Income Housing Developments**

The purpose of BOS Policy A-68 is to reduce the time required to exercise the regulatory function with regard to low-income housing developments. This policy is designed to expedite the permit processing of all lower income housing projects in order to produce such housing in the shortest possible time and to reduce development costs to the greatest extent.

**San Diego County BOS Policy I-79, Housing Affordable to Elderly Households**

The purpose of BOS Policy I-79 is to set guidelines for the implementation of San Diego County Zoning Ordinance, Section 4120, regarding affordable housing for the elderly. The BOS recognizes that current costs of land and financing make it difficult for the private sector to build housing affordable to elderly households. Therefore, San Diego County Zoning Ordinance, Section 4120, was adopted to authorize density bonuses in designated areas of the Land Use Element of the General Plan for projects that provide housing for very low-income elderly households under certain conditions. As described in Section 1.8, Other Project Components, of Chapter 1.0, Project Description, several BOS Policies and the San Diego County Zoning Ordinance are being updated as part of the proposed project, including BOS Policy 1-79 and San Diego County Zoning Ordinance, Section 4120. BOS Policy 1-79 would be incorporated into the San Diego County Zoning Ordinance and San Diego County Zoning Ordinance, Section 4120, would be updated.

## 2.12.3 Analysis of Project Effects and Determination of Significance

### *2.12.3.1 Issue 1: Population Growth*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

## Impact Analysis

The General Plan Update is the long range, comprehensive land use plan that establishes guidance for future growth and development patterns in the unincorporated County. It proposes areas for development of residential and commercial land uses, as well as roads and other infrastructure, to accommodate forecasted population growth in the unincorporated area. As such, the General Plan Update would induce population growth; however, growth would not be considered substantial unless the General Plan Update induced growth beyond State and regional projections.

As described in Section 1.12.2.1, Regional Land Use Planning and Projected Growth, in Chapter 1.0, Project Description, the entire County of San Diego has the second highest countywide population in the State and is anticipated to remain the second most populated county in 2030. The entire State of California is anticipated to grow approximately 30 percent between 2008 and 2030, to 49,240,891 (DOF 2008c). The Department of Finance forecasts that San Diego County will grow approximately 26 percent between 2008 and 2030 to a population of 3,950,757 in 2030. The County would represent approximately eight percent of the Statewide population in 2030. SANDAG forecasts a Countywide population of 3,984,753 in 2030. This would represent approximately 8 percent of the forecasted Statewide population. Therefore, the SANDAG forecast for the entire County is consistent with forecasts for the State and the entire County is anticipated to accommodate its forecasted share of Statewide growth. Regional growth consistent with the County's forecasted population for 2030 would not induce substantial Statewide population growth.

The unincorporated County is forecasted by SANDAG to have a population of 723,392 in 2030, approximately 18 percent of the forecasted regional population. This forecast is based on the General Plan Update draft land use maps. Therefore, the land use development and infrastructure proposed under the General Plan Update is anticipated to accommodate this growth. As discussed below, the General Plan Update would not induce additional growth beyond what is forecasted for the unincorporated area. New and expanded development and infrastructure would be needed to accommodate future population growth, the construction of which could have physical impacts on the environment, including impacts to biological resources, air quality, noise, or traffic. The environmental impacts of this growth are analyzed in the other issue topics of Chapter 2.0.

### General Plan Update Land Use Framework

The Land Use Element of the General Plan Update provides a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources. Currently, the County of San Diego is faced with both significant growth pressures and severe environmental constraints. While population continues to grow, the supply of land capable of supporting development continues to decrease. In order to accommodate this growth, the General Plan Update encourages the provision of diverse housing choices, commercial facilities, and infrastructure to accommodate forecasted growth while protecting the established character of existing urban and rural neighborhoods.

In general, the majority of new development, approximately 80 percent, is planned within the SDCWA boundary. This development pattern directs future growth to areas where existing or planned infrastructure and services can support the growth within or adjacent to existing

communities. By giving priority to development within areas identified for village residential densities, which range from two to 30 dwelling units per acre, the General Plan Update would avoid inducement of growth in the rural areas of the unincorporated County.

Primarily, substantial growth in rural areas would be inappropriate due to the character of these areas, development constraints such as topography and groundwater resources, and environmental constraints such sensitive habitats. Increased road access and infrastructure, such as water and sewer service, would occur under the General Plan Update; however, it would be limited in the rural areas of the County to be consistent with the natural and human-made environment, as described in the other environmental topic sections in Chapter 2.0. Planned development in the semi-rural and rural areas focuses development in and around existing unincorporated community town centers which allows the County to maximize existing infrastructure, provide for efficient service delivery, and strengthen town center areas while preserving the rural landscape.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

General plans and specific plans would be the applicable regulations pertaining to population growth. The County reviews development projects for conformance with such plans prior to approvals. For regulations pertaining to potential environmental impacts of growth in the unincorporated County, please refer to other sections of Chapter 2.0 of this EIR.

**Proposed General Plan Update Goals and Policies**

All of the goals and policies in the General Plan Update guide future development; however, a few goals include specific policies that reiterate the land use framework's ability to avoid development and infrastructure that would induce unplanned population growth. The Land Use Element contains Goal LU-1, which is the preparation of a land use plan that sustains the intent and integrity of the land use framework established by the General Plan Update. This goal is supported by Policy LU-1.2, which prohibits leapfrog development which is inconsistent with the land use plan and community plans. Leapfrog development consists of village densities located away from established villages or outside established water and sewer service boundaries that would require new infrastructure and would develop new housing that would directly or indirectly induce growth. Policy LU-9.4 supports Goal LU-9, which requires well defined, planned, and developed community cores. This policy prioritizes infrastructure improvements and the provision of public facilities for villages and community cores, consistent with the intensity of development allowed by the proposed land use map. Consistency with the proposed land use map avoids providing more infrastructure than is necessary to accommodate planned growth, since additional infrastructure could indirectly induce population growth. Goal LU-14 is to ensure that communities and development are served with adequate wastewater disposal that addresses potential hazards to human health and the environment. In support of this goal, Policy LU-14.4 prohibits sewer facilities that would induce unplanned growth. Sewer systems would be planned, developed, and sized to serve the land use pattern on the proposed land use map.

Additionally, the General Plan Update goals and policies included in the other sections of Chapter 2.0 mitigate the impacts of planned growth in the County to the extent feasible. For example, Section 2.3, Air Quality, lists the goals and policies that would reduce air quality impacts associated with planned growth under the General Plan Update. Section 2.16, Utilities,

lists the goals and policies pertaining to the additional demand on utilities to serve the growth accommodated by the General Plan Update.

**Summary**

The development and infrastructure proposed under the General Plan Update would directly and indirectly induce population growth; however, this growth is consistent with forecasted growth for the unincorporated County. The General Plan Update is a comprehensive plan to guide future growth and includes a framework for land use and development, as well as goals and policies, to prevent unanticipated or inappropriate population growth in the unincorporated County. Therefore, the proposed project would not result in the direct or indirect inducement of unplanned population growth and a significant impact would not occur.

### *2.12.3.2 Issue 2: Displacement of Housing*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

**Impact Analysis**

The General Plan Update is the long range, comprehensive land use plan that establishes guidance for future growth and development patterns in the unincorporated County including the provision of housing. New land use development or infrastructure accommodated by the proposed project would have the potential to displace existing housing, and would result in a significant impact if replacement housing would be required elsewhere outside of the unincorporated County.

In order to address concerns related to housing capacity, three types of analyses were conducted to determine whether the proposed land use map would produce adequate levels of dwelling units to house future population growth. The three models are summarized briefly below.

- Population Model: The County utilized a population forecast model that predicts growth at a regional level and does not provide project-level analysis. In order to make its forecast as accurate as possible, the County expanded the seven variables utilized by SANDAG to 24 development constraints. The County's constraints-based predictive model forecasts a total of 71,540 new dwelling units to be accommodated by the General Plan Update by buildout, compared to 2008 conditions, for a total of 238,512 dwelling units in the unincorporated area.
- Available Vacant Land Analysis: Staff performed an analysis of development potential on the approximately 630,500 acres of privately owned vacant land that is available for future development in the unincorporated County. This analysis revealed that the degree to which the predictive model constrains development (and reduces yield) varies dramatically between the regional categories.

- Building Permit Trends Analysis: An analysis of the number and type of building permits issued from 1990 through 2001 revealed that, if building continues at this rate, the plan provides enough capacity for the next 31 years. Even if the rate climbs by 20 percent, the proposed plan would support construction of new dwellings beyond 2027.

These analyses confirm that the proposed land use map would allow for an adequate number of dwelling units to meet the projected population, and additional housing outside the unincorporated County would not be required to keep up with demand.

As described in Section 2.1, Aesthetics, implementation of proposed General Plan Update would generally retain the existing land use pattern of the unincorporated County. However, displacement of existing housing would occur through the conversion of residential areas to other uses. Some areas that currently contain residences are designated for commercial or other non-residential land uses under the General Plan Update and future construction of these non-residential land uses would have the potential to displace the existing housing. However, increases in residential density in other areas of the unincorporated County would sufficiently offset displaced housing so that replacement housing elsewhere would not be necessary.

Consistent with State law, the County's land use plan provides adequate capacity to exceed its RHNA of 12,358 new residential units by accommodating up to 71,540 new residential units. Therefore, the General Plan Update would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

The State Housing Element Law, Section 65580 of the Government Code, requires that the Housing Element of a General Plan contain local commitments to provide sites with appropriate zoning and development standards and with services and facilities to accommodate the jurisdiction's RHNA for each income level. The RHNA is the only population and/or housing requirement that applies to the General Plan Update. As stated above, the County's land use plan provides adequate capacity to exceed its RHNA of 12,358 residential units.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes Goal H-4 to conserve housing currently available, especially affordable housing. This goal is supported by Policy H-4.1, which is to promote and support rehabilitation and revitalization strategies aimed at preserving the existing supply of affordable housing.

**Summary**

The General Plan Update would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. Therefore, impacts would be less than significant.

### *2.12.3.3 Issue 3: Displacement of People*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would be considered to have a significant impact if it would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

**Impact Analysis**

As described above in Section 2.12.3.2, Issue 2: Displacement of Housing, the proposed project would have the potential to result in the displacement of people from the conversion of residential areas to other uses. Some areas that currently contain residences are designated for commercial or other non-residential land uses under the General Plan Update and future construction of these non-residential land uses would have the potential to displace the existing housing (and people). However, also described in Section 2.12.3.2, increases in residential density in other areas of the unincorporated County would sufficiently offset displaced housing (and people) so that replacement housing elsewhere would not be necessary. Therefore, the General Plan Update would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

As described above in Section 2.12.3.2, Issue 2: Displacement of Housing, the RHNA is the only population and/or housing requirement that applies to the General Plan Update. The County's land use plan provides adequate capacity to exceed its RHNA of 12,358 residential units.

**Proposed General Plan Update Goals and Policies**

The General Plan Update does not contain goals and policies directly related to the displacement of people. However, the Housing Element was prepared in accordance with the State Housing Element Law.

**Summary**

The General Plan Update would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Therefore, the General Plan Update would not result in a potentially significant impact.

## 2.12.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for population and housing includes the entire County, including incorporated cities, and the surrounding Counties of Riverside, Orange, and Imperial, and Baja California, Mexico.

### 2.12.4.1 Issue 1: Population Growth

The cumulative projects in the San Diego region would have the potential to result in a significant cumulative impact if they would, in combination, directly or indirectly induce substantial population growth. The planning documents, such as general plans prepared by the adjacent jurisdictions, would be subject to regional plans such as the RCP and RTP, similar to the General Plan Update. The general plans of adjacent jurisdictions have been prepared to be consistent with the population forecast of the regional planning documents. Thus, these projects would accommodate anticipated future growth, not induce new growth, similar to the proposed project. Projects in Baja California, Mexico would not contribute to cumulative population growth in the San Diego County due to immigration restrictions. However, the private projects identified in the cumulative analysis in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, propose dwelling units and, therefore, have the potential to induce population growth. For example, the Jacumba Valley Ranch project in Mountain Empire Subregion proposes over 2,000 dwelling units in a very rural area of the County. The Warner Ranch project proposes 900 dwelling units in the Pala/Pauma Valley Subregion, which is also a relatively rural and undeveloped planning area. However, in order to be approved, these projects would be required to comply with the applicable general plan in their jurisdiction and would therefore be consistent with the forecasted growth for the jurisdiction. The General Plan Update accommodates less growth than the existing General Plan. The proposed General Plan Update would be adequate to accommodate planned growth through 2030, though it is possible that beyond 2030 this reduction in capacity would induce population growth in surrounding jurisdictions. However, this impact is speculative and by 2030 it is reasonably foreseeable that the County and/or surrounding jurisdictions would update their general plans to accommodate updated population forecasts for years beyond 2030. Therefore, because cumulative projects would be required to comply with applicable land use plans governing regional growth, a significant cumulative impact would not occur. Therefore, the proposed project, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact.

### 2.12.4.2 Issue 2: Displacement of Housing

The cumulative projects in the San Diego region would have the potential to result in a cumulative impact if they would, in combination, displace a substantial amount of housing that would necessitate replacement housing elsewhere. The general plans and other planning documents prepared by the adjacent cities and counties would be required to supply their share of the RHNA, similar to the General Plan Update. The planning documents prepared by adjacent jurisdictions would be required to include a land use plan to provide adequate housing within the jurisdiction and displaced housing would be replaced primarily within the jurisdiction. The replacement of housing outside the jurisdiction that it's displaced in would be a rare occurrence and would not result in a cumulative impact. Projects in Baja California, Mexico would not contribute to cumulative population growth in the San Diego County due to immigration restrictions. In addition, private development projects, such as those identified in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, would be required to be consistent with the applicable general plan and other land use plans governing the project site in order to be approved. Because cumulative projects would comply with all applicable land use plans to provide adequate housing within a jurisdiction, a significant cumulative impact would not occur. Therefore, the General Plan Update, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact.

### *2.12.4.3 Issue 3: Displacement of People*

The cumulative projects in the San Diego region would have the potential to result in a cumulative impact if they would, in combination, displace substantial number of people that would necessitate replacement housing elsewhere. The general plans and other planning documents prepared by the adjacent cities and counties would be required to develop a land use plan that would accommodate the existing and forecasted population, similar to the General Plan Update. Consistent with State law, these planning documents would be required to include a land use plan to provide adequate housing to accommodate forecasted numbers of people within the jurisdiction, and displaced development would be replaced primarily within the jurisdiction, so that housing would not need to be provided outside of the jurisdiction. Projects in Baja California, Mexico would not contribute to cumulative population growth in the San Diego County due to immigration restrictions. In addition, private development projects, such as those identified in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, would be required to be consistent with the applicable land use plans governing the project site. Because cumulative projects would comply with all applicable land use plans to provide adequate development within a jurisdiction, a significant cumulative impact would not occur. Therefore, the General Plan Update, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact.

## 2.12.5 Significance of Impact Prior to Mitigation

The proposed project would not result in a potentially significant direct or cumulative impact associated with population growth, displacement of housing, or displacement of people.

## 2.12.6 Mitigation

### *2.12.6.1 Issue 1: Population Growth*

The proposed project would not result in the direct or indirect inducement of unplanned population growth. Therefore, impacts would be less than significant and no mitigation is required. Refer to the other sections of Chapter 2.0 regarding the environmental impacts of planned growth and development occurring under the General Plan Update.

### *2.12.6.2 Issue 2: Displacement of Housing*

The proposed project would not result in a potentially significant displacement of housing. No mitigation is required.

### *2.12.6.3 Issue 3: Displacement of People*

The proposed project would not result in a potentially significant displacement of people. No mitigation is required.

## 2.12.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses.

### *2.12.7.1 Issue 1: Population Growth*

Implementation of the proposed General Plan Update would not directly or indirectly induce unplanned population growth. Therefore, the proposed project would not result in a potentially significant direct impact. Additionally, the proposed project would not contribute to a significant cumulative impact associated with population growth.

### *2.12.7.2 Issue 2: Displacement of Housing*

Implementation of the proposed General Plan Update would not displace a substantial amount of housing. Therefore, the proposed project would result not in a significant impact. In addition, the proposed project would not contribute to a significant cumulative impact associated with displacement of housing.

### *2.12.7.3 Issue 3: Displacement of People*

Implementation of the proposed General Plan Update would not displace a substantial amount of people. Therefore, the proposed project would result not in a significant impact. In addition, the proposed project would not contribute to a significant cumulative impact associated with displacement of people.

## Table 2.12-1. Population Trends: 1990-2007

| CPA | Population in 1990 | Population in 2000 | Percent of Population in Unincorporated Area in 2000 | Percent Change from 1990 to 2000 | Population Estimate in January 2008 | Percent of Population in Unincorporated Area in 2008 | Percent Change from 2000 to 2008 |
|---|---|---|---|---|---|---|---|
| Alpine | 12,593 | 16,542 | 4 | 31 | 17,350 | 4 | 5 |
| Bonsall | 8,261 | 8,880 | 2 | 7 | 9,890 | 2 | 11 |
| Central Mountain | 4,285 | 4,880 | 1 | 14 | 4,646 | 1 | -5 |
| County Islands | 1,967 | 1,986 | <1 | 1 | 2,098 | 0 | 6 |
| Crest/Dehesa | 8,975 | 9,365 | 2 | 4 | 10,211 | 2 | 9 |
| Desert | 3,079 | 3,262 | 1 | 6 | 3,520 | 1 | 8 |
| Fallbrook | 32,239 | 39,599 | 9 | 23 | 44,378 | 9 | 12 |
| Jamul/Dulzura | 8,509 | 9,218 | 2 | 8 | 9,915 | 2 | 8 |
| Julian | 2,364 | 3,104 | 1 | 31 | 3,049 | 1 | -2 |
| Lakeside[(1)] | 65,183 | 72,568 | 16 | 11 | 75,447 | 15 | 4 |
| Mountain Empire | 5,363 | 6,402 | 1 | 19 | 6,472 | 1 | 1 |
| North County Metro | 38,083 | 38,253 | 9 | 0 | 42,639 | 9 | 11 |
| North Mountain | 2,763 | 2,830 | 1 | 2 | 2,416 | 0 | -15 |
| Otay | 4,134 | 6,804 | 2 | 65 | 4,690 | 1 | -31 |
| Pala/Pauma Valley | 4,761 | 6,176 | 1 | 30 | 5,618 | 1 | -9 |
| Pendleton/De Luz | 36,450 | 36,927 | 8 | 1 | 43,792 | 9 | 19 |
| Rainbow | 1,891 | 1,836 | <1 | -3 | 1,815 | 0 | -1 |
| Ramona | 28,302 | 33,940 | 8 | 20 | 36,723 | 7 | 9 |
| San Dieguito | 9,905 | 12,516 | 3 | 26 | 30,489 | 6 | 144 |
| Spring Valley | 55,267 | 59,324 | 13 | 7 | 62,377 | 13 | 5 |
| Sweetwater | 13,247 | 12,951 | 3 | -2 | 13,187 | 3 | 2 |
| Valle de Oro | 37,184 | 40,031 | 9 | 8 | 42,743 | 9 | 7 |
| Valley Center | 12,960 | 15,525 | 4 | 20 | 18,269 | 4 | 18 |
| **Unincorporated Area** | **397,763** | **442,919** | **100** | **11** | **491,764** | **100** | **11** |
| San Diego County | 2,498,016 | 2,813,833 | - | 13 | 3,146,274 | - | 12 |

(1) Lakeside CPA includes former Pepper Drive/Bostonia CPA
Note: Data has been rounded to nearest whole number.
Source: SANDAG 2008c

## Table 2.12-2. SANDAG Population Forecast: 2000-2030

| CPA | Census Data Population | Population Forecast | | | Approximate Percent Change | | | |
|---|---|---|---|---|---|---|---|---|
| | 2000 | 2010 | 2020 | 2030 | 2000-2010 (percent) | 2010-2020 (percent) | 2020-2030 (percent) | 2000-2030 (percent) |
| Alpine | 16,542 | 17,734 | 23,678 | 28,075 | 7 | 34 | 19 | 70 |
| Bonsall | 8,880 | 10,739 | 14,676 | 16,249 | 21 | 37 | 11 | 83 |
| Central Mountain | 4,880 | 4,858 | 5,987 | 8,288 | 0 | 23 | 38 | 70 |
| County Islands | 1,986 | 2,178 | 2,086 | 2,450 | 10 | -4 | 17 | 23 |
| Crest/Dehesa | 9,365 | 10,048 | 10,647 | 12,026 | 7 | 6 | 13 | 28 |
| Desert | 3,262 | 5,251 | 12,520 | 18,968 | 61 | 138 | 52 | 481 |
| Fallbrook | 39,599 | 43,148 | 57,446 | 69,833 | 9 | 33 | 22 | 76 |
| Jamul/Dulzura | 9,218 | 10,943 | 13,416 | 20,153 | 19 | 23 | 50 | 119 |
| Julian | 3,104 | 3,194 | 4,287 | 4,994 | 3 | 34 | 16 | 61 |
| Lakeside[(1)] | 72,568 | 78,057 | 87,383 | 97,365 | 8 | 12 | 11 | 70 |
| Mountain Empire | 6,402 | 7,530 | 9,453 | 16,340 | 18 | 26 | 73 | 155 |
| North County Metro | 38,253 | 49,660 | 69,729 | 82,381 | 30 | 40 | 18 | 115 |
| North Mountain | 2,830 | 3,270 | 4,200 | 7,923 | 16 | 28 | 89 | 180 |
| Otay | 6,804 | 7,448 | 12,857 | 14,240 | 9 | 73 | 11 | 109 |
| Pala/Pauma Valley | 6,176 | 6,676 | 8,201 | 13,937 | 8 | 23 | 70 | 126 |
| Pendleton/De Luz | 36,927 | 36,739 | 37,718 | 39,770 | 0 | 3 | 5 | 8 |
| Rainbow | 1,836 | 2,230 | 3,429 | 4,546 | 21 | 54 | 33 | 148 |
| Ramona | 33,940 | 40,261 | 55,024 | 57,545 | 19 | 37 | 5 | 70 |
| San Dieguito | 12,516 | 23,210 | 31,722 | 35,900 | 85 | 37 | 13 | 187 |
| Spring Valley | 59,324 | 62,958 | 65,854 | 68,503 | 6 | 5 | 4 | 15 |
| Sweetwater | 12,951 | 13,979 | 15,262 | 16,366 | 8 | 9 | 7 | 26 |
| Valle de Oro | 40,031 | 43,851 | 44,066 | 46,836 | 10 | 0 | 6 | 17 |
| Valley Center | 15,525 | 20,757 | 37,501 | 40,704 | 34 | 81 | 9 | 162 |
| **Unincorporated Area Total** | **442,919** | **504,719** | **627,142** | **723,392** | **14** | **24** | **15** | **63** |
| San Diego County | 2,813,833 | 3,245,279 | 3,635,855 | 3,984,753 | 15.33 | 12.04 | 9.60 | 41.61 |

[(1)] Lakeside CPA includes former Pepper Drive/Bostonia CPA
Note: Data has been rounded to nearest whole number.
Source: SANDAG 2008c

## Table 2.12-3. Household Characteristics in the Unincorporated Area: 1990-2000

| Household Type | 1990 | | 2000 | | Percent Change from 1990 to 2000 |
|---|---|---|---|---|---|
| | Households | Percent of Total Households | Households | Percent of Total Households | |
| Households | 127,200 | 100 | 143,871 | 100 | 13 |
| Family Households | 101,283 | 80 | 111,654 | 78 | 10 |
| Married With Children | 42,501 | 33 | 42,596 | 30 | 0 |
| Married No Children | 43,159 | 34 | 48,691 | 34 | 13 |
| Other Families | 15,623 | 12 | 20,367 | 14 | 30 |
| Non-Family Households | 26,382 | 21 | 30,237 | 21 | 15 |
| Singles | 19,358 | 15 | 24,153 | 17 | 25 |
| Elderly Living Alone | 7,616 | 6 | 9,895 | 7 | 30 |
| Other Non-Families | 7,024 | 6 | 6,084 | 4 | -13 |
| Average Household Size | 3 | | 3 | | |

Note: Data has been rounded to nearest whole number.
Sources: SANDAG 2005

## Table 2.12-4. Type of Occupancy: 2000

| CPA | Total Number of Units | Number of Occupied Units | Percent of Owner-Occupied Units | Percent of Renter-Occupied Units |
|---|---|---|---|---|
| Alpine | 6,108 | 5,853 | 71 | 29 |
| Bonsall | 3,367 | 3,206 | 79 | 21 |
| Central Mountain | 2,389 | 1,753 | 79 | 21 |
| County Islands | 588 | 558 | 51 | 49 |
| Crest/Dehesa | 3,333 | 3,239 | 88 | 13 |
| Desert | 2,887 | 1,441 | 76 | 25 |
| Fallbrook | 14,046 | 13,476 | 69 | 31 |
| Jamul/Dulzura | 3,180 | 3,029 | 86 | 14 |
| Julian | 1,822 | 1,265 | 74 | 27 |
| Lakeside | 20,819 | 20,177 | 71 | 29 |
| Mountain Empire | 2,632 | 2,187 | 70 | 30 |
| North County Metro | 14,388 | 13,805 | 83 | 17 |
| North Mountain | 1,706 | 1,129 | 74 | 26 |
| Otay[(1)] | 3 | 2 | 100 | 0 |
| Pala/Pauma Valley | 2,071 | 1,802 | 62 | 38 |
| Pendleton/De Luz | 6,689 | 6,104 | 8 | 92 |
| Pepper Dr/Bostonia | 5,805 | 5,627 | 44 | 56 |
| Rainbow | 707 | 668 | 73 | 27 |
| Ramona | 11,352 | 10,957 | 75 | 25 |
| San Dieguito | 5,025 | 4,597 | 89 | 11 |
| Spring Valley | 19,503 | 19,114 | 65 | 35 |
| Sweetwater | 4,458 | 4,354 | 78 | 22 |
| Valle De Oro | 14,540 | 14,269 | 76 | 25 |
| Valley Center | 5,529 | 5,259 | 84 | 16 |
| **Unincorporated Area** | **152,947** | **143,871** | **70** | **30** |
| San Diego County | 1,040,149 | 994,677 | 58 | 42 |

(1) Nearly all of the population of Otay is composed of inmates from the three large correctional facilities in the CPA. These correctional facilities are not included in housing data (BOS 2004).

Note: Data has been rounded to nearest whole number.

Source: Census 2000

## Table 2.12-5. Household Income: 2000

| Households | Households | Percent Extremely Low Income (0-30 AMI) | Percent Very Low Income (31-50 AMI) | Percent Low Income (51-80 AMI) | Percent Moderate/ Above Income (81+ AMI) |
|---|---|---|---|---|---|
| Owner-Households | 99,515 | 5 | 6 | 12 | 77 |
| Renter-Households | 41,394 | 14 | 18 | 25 | 42 |
| **Total** | **140,909** | **8** | **10** | **16** | **67** |

Notes:
1) AMI = Area Median Income
2) 2000 Census sample data (long form) was used to prepare the CHAS dataset. Characteristics were based on 5 percent sample and then extrapolated to 100 percent; depending on the weighting used, total numbers do not always match the 100 percent data.
3) Data has been rounded to nearest whole number.
Source: HUD 2006

## Table 2.12-6. Single-Parent Household Characteristics: 2000

| Region | Total Single-Parent Households | Percent of Total Households | Single-Parent Households with Children | | Single-Parent Households with Children Living Below Poverty | |
|---|---|---|---|---|---|---|
| | | | Percent Male-Headed Households | Percent Female-Headed Households | Percent Male-Headed Households | Percent Female-Headed Households |
| Unincorporated Area | 20,367 | 14 | 3 | 7 | 12 | 25 |
| San Diego County | 172,565 | 17 | 2 | 7 | 15 | 30 |

Note: Data has been rounded to nearest whole number.
Source: Census 2000

## Table 2.12-7. Housing Type: 2008

| CPA | Total Number of Units | Percent Single-Family Homes | Percent Multi-Family Home | Percent Mobile Homes and Other |
|---|---|---|---|---|
| Alpine | 6,444 | 70 | 25 | 5 |
| Bonsall | 3,837 | 80 | 15 | 5 |
| Central Mountain | 2,127 | 77 | 12 | 7 |
| County Islands | 619 | 99 | 1 | 0 |
| Crest/Dehesa | 3,530 | 90 | 7 | 3 |
| Desert | 3,140 | 69 | 7 | 24 |
| Fallbrook | 15,665 | 74 | 21 | 5 |
| Jamul/Dulzura | 3,167 | 86 | 11 | 3 |
| Julian | 1,686 | 92 | 7 | 1 |
| Lakeside | 27,411 | 56 | 25 | 19 |
| Mountain Empire | 2,694 | 80 | 15 | 5 |
| North County Metro | 15,970 | 84 | 11 | 6 |
| North Mountain | 1,515 | 60 | 13 | 27 |
| Otay[(1)] | 5 | 60 | 40 | 0 |
| Pala/Pauma Valley | 1,929 | 84 | 4 | 12 |
| Pendleton/De Luz | 6,667 | 89 | 7 | 4 |
| Pepper Dr/Bostonia | 5,821 | 31 | 51 | 18 |
| Rainbow | 683 | 72 | 13 | 15 |
| Ramona | 11,997 | 81 | 16 | 4 |
| San Dieguito | 10,854 | 79 | 21 | 0 |
| Spring Valley | 20,512 | 71 | 22 | 7 |
| Sweetwater | 4,519 | 86 | 14 | 0 |
| Valle De Oro | 15,477 | 74 | 26 | 1 |
| Valley Center | 6,513 | 83 | 10 | 8 |
| **Unincorporated Area** | **166,972** | **74** | **19** | **7** |
| San Diego County | 1,140,349 | 60 | 36 | 4 |

(1) Nearly all of the population of Otay is composed of inmates from the three large correctional facilities in the CPA. These correctional facilities are not included in housing data (County of San Diego 2004).

Note: Data has been rounded to nearest whole number.

Source: SANDAG 2008c

## Table 2.12-8. Housing Unit Trends: 1990-2010

| Region | Number of Housing Units | | | Percent Change | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2010 | 1990-2000 | 2000-2010 |
| Unincorporated Area | 137,100 | 152,947 | 172,443 | 12 | 13 |
| San Diego County | 946,240 | 1,040,149 | 1,174,180 | 10 | 13 |

Note: Data has been rounded to nearest whole number.

Source: SANDAG 2008c

## Table 2.12-9. Median Home Values in Unincorporated Area: 2005-2007

| CPA[(1)] | 2007 | | | | 2005 | |
|---|---|---|---|---|---|---|
| | Total Number of Sales | Single-Family Median (Resale) | Condo Median (Resale) | Overall Median (New and Resale) | Overall Median | Percent Change 2005-2007 |
| Alpine | 176 | $622,500 | $270,000 | $569,500 | $611,000 | -7 |
| Bonsall | 68 | $834,500 | $365,000 | $629,500 | $610,000 | 3 |
| Fallbrook | 545 | $540,000 | $301,250 | $510,000 | $587,000 | -13 |
| Jamul/Dulzura | 77 | $677,500 | --- | $677,500 | $769,000 | -12 |
| Julian | 67 | $334,000 | --- | $332,000 | $306,000 | 9 |
| Lakeside | 309 | $459,750 | $190,000 | $425,000 | $434,000 | -2 |
| Ramona | 371 | $511,000 | $314,000 | $508,000 | $523,000 | -3 |
| Spring Valley | 541 | $410,000 | $271,250 | $375,000 | $438,000 | -14 |
| Valley Center | 149 | $630,000 | --- | $663,250 | $706,000 | -6 |

(1) Median home value information not available for all CPAs. CPAs with limited sales might produce highly skewed data.

Note: Data has been rounded to nearest whole number.

Source: DQ News 2008

## Table 2.12-10. Manufactured/Mobile Home Value: November 2006

| CPA | Number of Sales | Median | Range |
|---|---|---|---|
| Alpine | 2 | $72,000 | $49,000-$95,000 |
| Fallbrook | 34 | $117,250 | $29,500-$370,000 |
| Jamul/Dulzura | 1 | $35,000 | $35,000 |
| Lakeside | 21 | $219,000 | $45,900-$450,000 |
| Ramona | 15 | $75,500 | $48,800-$454,000 |
| Spring Valley | 32 | $94,500 | $13,450-$169,000 |
| Valley Center | 16 | $85,450 | $45,000-$194,900 |

Note: Manufactured/mobile home information is not available for all CPAs. Typically mobile homes at the high end of the price range are anomalies, as evident in the modest median values. These higher-priced homes are often located on large lots. In addition, data has been rounded to nearest whole number

Source: NAR 2006

## Table 2.12-11. Average Rental Rate by Type in Unincorporated Area: March through May 2008

| CPA | Apartment | Condo/ Townhouse | Cottage/ Guest House | Single Bedroom | Studio | House | Overall Average |
|---|---|---|---|---|---|---|---|
| Julian | $1,230 | --- | --- | $862 | $1,050 | $1,437 | $1,333 |
| Fallbrook | | $1,200 | --- | --- | | $1,300 | $1,250 |
| Lakeside | $923 | $1,196 | | --- | $904 | $2,054 | $1,085 |
| Ramona | $969 | $1,264 | $830 | $801 | $830 | $2,070 | $1,327 |
| Bonsall | $1,090 | $1,434 | | $790 | $947 | $2,507 | $1,382 |
| Valley Center | $950 | --- | --- | --- | --- | $2,800 | $1,875 |
| Jamul | --- | --- | --- | --- | --- | $1,200 | $1,200 |
| Spring Valley | $1,049 | $1,529 | $1,365 | $1,178 | $804 | $1,691 | $1,269 |

Note: Rental rate information is not available for all CPAs. Data has been rounded to nearest whole number.
Sources: Rentslicer 2008

## Table 2.12-12. Age of Housing: 2000

| Region | Year Constructed (no. years old) | | |
|---|---|---|---|
| | 1949 or Earlier 50+ Years (percent) | 1950-1969 30-50 Years (percent) | 1970 or After <30 Years (percent) |
| Unincorporated Area | 7 | 24 | 69 |
| San Diego County | 10 | 28 | 62 |

Note: Data has been rounded to nearest whole number.
Source: Census 2000

## Table 2.12-13. Overcrowding by Region: 2000

| Region | Total Occupied Overcrowded Units | | | Total Renter-Occupied Overcrowded Units | | | Total Owner-Occupied Overcrowded Units | | |
|---|---|---|---|---|---|---|---|---|---|
| | Units | >1.0 prs/rm[(1)] (percent) | >1.5 prs/rm (percent) | Units | >1.0 prs/rm (percent) | >1.5 prs/rm (percent) | Units | >1.0 prs/rm (percent) | >1.5 prs/rm (percent) |
| Unincorporated Area | 11,624 | 8 | 4 | 7,334 | 17 | 9 | 4,290 | 4 | 2 |
| San Diego County | 117,426 | 12 | 7 | 85,316 | 19 | 11 | 32,110 | 6 | 3 |

(1) prs/rm = persons/room
Note: Data has been rounded to nearest whole number.
Source: Census 2000

## Table 2.12-14. Cost Burden by Household Type and Income: 2000

| Households | Total Cost Burdened Households | Percent of Total Households | Percent Extremely Low Income (0-30 AMI) | Percent Very Low Income (31-50 AMI) | Percent Low Income (51-80 AMI) | Percent Moderate or Above (>80 AMI) |
|---|---|---|---|---|---|---|
| **Owner-Households** | | | | | | |
| Elderly | 775 | 28 | 22 | 23 | 22 | 33 |
| Small Families | 15,051 | 31 | 7 | 7 | 18 | 68 |
| Large Families | 3,952 | 31 | 8 | 10 | 24 | 58 |
| Others | 4,178 | 40 | 19 | 12 | 19 | 50 |
| Total Owners | 30,840 | 31 | 12 | 12 | 20 | 56 |
| **Renter-Households** | | | | | | |
| Elderly | 1,976 | 51 | 38 | 35 | 20 | 7 |
| Small Families | 7,266 | 33 | 28 | 36 | 27 | 9 |
| Large Families | 2,268 | 32 | 31 | 40 | 23 | 6 |
| Others | 3,128 | 38 | 31 | 25 | 35 | 10 |
| Total Renters | 14,622 | 35 | 30 | 34 | 27 | 8 |
| **Total** | **45,430** | **32** | **18** | **19** | **22** | **41** |

Notes:
1) AMI = Area Median Income
2) 2000 Census sample data (long form) was used to prepare the CHAS dataset. Characteristics were based on 5 percent sample and then extrapolated to 100 percent; depending on the weighting used, total numbers do not always match the 100 percent data.
Totals do not add up due to rounding errors that occurred during the extrapolation of data from general proportions.
3) Data has been rounded to nearest whole number.
Source: HUD 2006

## Table 2.12-15. Employment by Industry: 2000

| CPA | Total Population | Total Employed | Agriculture (percent) | Construction/ Transportation/ Utilities (percent) | Manufacturing (percent) | Wholesale/ Retail Trade (percent) | Services (percent) | Professional (percent) | Government (percent) |
|---|---|---|---|---|---|---|---|---|---|
| Unincorporated Area | 442,919[(1)] | 180,036 | 2 | 14 | 9 | 15 | 43 | 11 | 6 |
| San Diego County | 2,813,833 | 1,232,739 | 1 | 10 | 11 | 14 | 45 | 13 | 5 |

[(1)] This number represents total population of unincorporated San Diego County, not total employable population.
Note: Data has been rounded to nearest whole number.
Source: Census 2000

# 2.13 Public Services

This section of the EIR addresses public services provided in the unincorporated County, including fire protection, police protection, schools, and libraries. This section discusses the current status of these services and any changes to the physical environment that would occur from an increased need in these services resulting from land uses and development proposed under the County General Plan Update. Information contained in the following section has been incorporated from the County of San Diego General Plan Land Use Element Background Report (DPLU 2007c), County of San Diego General Plan Safety Element Background Report (DPLU 2007e), Fire Protection and Emergency Medical Services Review of Unincorporated San Diego County (LAFCO 2005), San Diego County Sheriff's Department 2006 Annual Report (SDSD 2006), and additional sources as cited throughout the document.

A summary of the impacts to public services identified in Section 2.13.3 is provided below.

**Public Services Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Fire Protection Services | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Police Protection Services | Potentially Significant | Potentially Significant | Less Than Significant |
| 3 | School Services | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 4 | Other Public Services | Potentially Significant | Potentially Significant | Less Than Significant |

## 2.13.1 Existing Conditions

This section of the EIR is divided into four discussions of public services offered within the unincorporated County. These public services include fire protection, police protection, school facilities, and library facilities.

### *2.13.1.1 Fire Protection*

Within the unincorporated region's emergency services system, fire and emergency medical services are provided by Fire Protection Districts (FPD), County Service Areas (CSA) and CAL FIRE. Collectively, there are over 2,800 firefighters responsible for protecting the San Diego region from fire. Generally, each agency is responsible for structural fire protection and wildland fire protection within their area of responsibility. However, mutual and automatic aid agreements enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. Interdependencies that exist among the region's fire protection agencies are primarily voluntary as no local governmental agency can exert authority over another.

Table 2.13-1 identifies the 28 fire agencies that serve the unincorporated County while Figure 2.13-1 shows the service area of each fire agency. Table 2.13-2 identifies the existing population served by each agency. Agencies that currently service the largest population and housing base include San Miguel FPD (36,403 housing units and 109,691 population), Lakeside FPD (20,666 housing units and 59,168 population), North County FPD (16,850 housing units

and 48,397 population), San Diego Rural FPD (9,965 housing units and 27,996 population), and Rincon Del Diablo Municipal Water District (RDDMWD) (9,887 housing units and 29,691 population). A summary of each agency is provided below.

## Local Fire/Water Districts

The fire protection agencies that serve the unincorporated County can be broadly classified as independent agencies or dependent agencies. Independent agencies have a directly elected Board of Directors. Dependent agencies rely on elected officials from other levels of local government. Regardless of classification, each of the fire protection agencies is autonomous. Each local government has the ability to craft unique policies and practices and each agency is empowered, within the limits of State law, to make independent fiscal decisions.

### Alpine Fire Protection District

Alpine FPD was formed on December 19, 1957 and covers 27.5 square miles. The District dedicated the new Station 17 located at 1364 Tavern Road on March 17, 2006. The District has two Type I (structure fire engines), and one Type III (wildland fire engine), two command vehicles, two support/utility vehicles and a multi-casualty trailer. Additionally, Station 17 also houses one Medic Unit provided by a joint operating agreement with American Medical Response (AMR), Grossmont Health Care District, and the County of San Diego.

### Bonita-Sunnyside Fire Protection District

Formed in 1950 and reorganized in 1952, the Bonita/Sunnyside FPD provides fire protection, rescue, emergency medical services (paramedic Engine Company), community education, and prevention services to residents living in a 5.5 square mile area in the Sweetwater Valley, near the city of Chula Vista. Funding is provided through a combination of property taxes and a local benefit fee. Paramedic ambulance transport is provided through the Chula Vista Paramedic Exclusive Operating Area.

### Borrego Springs Fire Protection District

Formed in 1961, the District surrounds the community of Borrego Springs, encompassing an area of 305.5 square miles. The District provides structural and wildland fire suppression (though wildland fire protection is largely the responsibility of CAL FIRE), fire prevention, rescue services, and Advanced Life Support (ALS) ambulance medical services from one station.

### Deer Springs Fire Protection District

This District is located north of the City of Escondido, northeast of the City of San Marcos, and covers approximately 45 square miles. Established in December 1981, the District, under a cooperative fire protection agreement with CAL FIRE, provides structural fire protection, rescue, Emergency Medical Service (EMS) with Emergency Medical Technicians (EMTs), inspection, and fire prevention programs from three fire stations. ALS ambulance service is provided through the Valley Center ALS Ambulance Service Area.

### Julian-Cuyamaca Fire Protection District

This District encompasses approximately 81 square miles amid the mountains of eastern San Diego County. The District began operations in June of 1983 and provides structural and wildland fire suppression (though primary responsibility for wildfire remains largely under CAL FIRE and U.S. Forest Service (USFS), ALS ambulance services, fire prevention, and rescue from two stations: one located in Julian and the other in Cuyamaca. The District also provides ALS ambulance service to Shelter Valley, Santa Ysabel and portions of the SR-78 corridor.

### Lakeside Fire Protection District

The Lakeside FPD covers an area of approximately 55 square miles. The district provides structural and wildland fire suppression, emergency medical (paramedic engine company) and rescue services, as well as code compliance, public service, education, and safety programs. Paramedic ambulance transportation is provided through CSA 69. CSA 69 consists of Santee, Lakeside and a limited portion of the East County FPD.

### North County Fire Protection District

This FPD encompasses 92 square miles, including the communities of Fallbrook, Bonsall, and Rainbow in northern San Diego County. The District provides structural and wildland fire protection (though wildland responsibility lies with CAL FIRE), as well as paramedic first-responder and ambulance transport emergency medical services, rescue and fire prevention. The District operates from six stations. The District also provides administrative support to the Rainbow Volunteer Fire Department (CSA), which became part of the District in 1986.

### Pine Valley Fire Protection District

Encompassing approximately 75 square miles, the Pine Valley FPD is located in the unincorporated communities of Pine Valley and Guatay, along I-8 in the eastern portion of San Diego County. The District, under a cooperative fire protection agreement with CAL FIRE, provides structural fire protection, emergency medical services, vehicle extrication and rescue to this area. The District also responds to wildland fires, though wildland fire protection within this area is predominantly the responsibility of the USFS and CAL FIRE. Paramedic ambulance transport is provided through the Grossmont Health Care District II.

### Ramona Municipal Water District

The Ramona Municipal Water District (RMWD), located near the geographical center of the San Diego County, was formed on August 15, 1956, as a publicly owned special district. The District provides water, sewer, fire protection, emergency medical services and park services to the public. The District's boundaries extend approximately 75 square miles. The Fire Department is managed by the RMWD. RMWD has a year-to-year contract with CAL FIRE to operate the RMWD fire department under the direction of the RMWD General Manager. RMWD operates out of three stations and provides EMT/ paramedic level service.

### Rancho Santa Fe Fire Protection District

Formed in 1946, the Rancho Santa Fe FPD provides services to a residential area of approximately 42 square miles, located between I-5 and I-15 north of San Diego's City limits.

The District provides structural and wildland fire protection, (though primary responsibility for wildfire remains largely under CAL FIRE), EMS (BLS and ALS first-response), rescue, prevention, and community education. The Department operates from four fire stations. ALS ambulance transport service is provided through CSA 17.

**Rincon Del Diablo Municipal Water District**

In 1976, RDDMWD established Improvement District (10) "E" to provide fire protection, paramedic ambulance transport, and emergency services to residents within the RDDMWD. Containing unincorporated areas to the east, south, and west of Escondido, services are provided by contract with the City of Escondido signed in 1984. The contract for services covers all of 10 "E" that is outside the city boundary.

**San Diego Rural Fire Protection District**

Formed on May 18, 1983, the San Diego Rural FPD consolidated 13 East County volunteer fire departments. They operate fourteen stations, of which three are full-time paid and eleven are volunteer staffed. The District, under a cooperative fire protection agreement with CAL FIRE, protects an area of approximately 720 square miles and provides emergency medical services, structural fire protection and rescue services. The District also responds to wildland fires, though wildland fire protection within this area is primarily the responsibility of CAL FIRE and USFS. Paramedic ambulance transport is provided by the Grossmont Health Care District II.

**San Marcos Fire Protection District**

The San Marcos FPD is a subsidiary district of the City of San Marcos and is governed by the City Council. The District encompasses 33 square miles, 24 of which lie within the San Marcos city limits. As of March 2008, the District operates from four stations located throughout the City of San Marcos. Paramedic service is available from each station through the use of paramedic engine companies. The District also provides paramedic ambulance transport service.

**San Miguel Consolidated Fire Protection District**

San Miguel Consolidated FPD is located east of the Cities of San Diego and Lemon Grove, south of the Cities of La Mesa and El Cajon, and west of the communities of Jamul. The San Miguel Consolidated FPD covers approximately 56.3 square miles of unincorporated territory. The FPD provides structural fire protection, wildland fire suppression, rescue and emergency medical services (paramedic engine company), code compliance, fire prevention and education to the communities of Spring Valley, Casa de Oro, La Presa, Grossmont/Mount Helix, Bostonia, Crest, and Rancho San Diego. Paramedic ambulance transport is provided through the Grossmont Health Care District I.

**Valley Center Fire Protection District**

The Valley Center FPD covers an area of 83 square miles in and around the community of Valley Center, north of the City of Escondido and east of Interstate 15. Under a cooperative fire protection agreement with CAL FIRE, the District provides structural and wildland fire suppression, though primary responsibility for wildfire remains largely under CAL FIRE, and EMS, with service provided to the District from two stations. Ambulance service is provided through the Valley Center ALS Ambulance Service Area.

### Vista Fire Protection District

Fire protection to the Vista FPD area was initially provided by the all-volunteer Vista Rural Fire Protection District formed in 1928. The Vista FPD was adopted by the San Diego County Board of Supervisors (BOS) on July 14, 1944. In 1963 when the City of Vista incorporated it removed 12 square miles from the district with the two entities sharing pro rata costs. The Vista FPD was set up to serve both agencies equally. In 2005 a new contract was signed which brought all assets under one roof. The Vista FPD covers approximately 19 square miles and a population of 11,105. The service area of the Vista City Fire Department, including both the City and the District and is approximately 38 square miles. The City of Vista Fire Department has four stations, and is building two new stations. It also provides paramedic ambulances transport services within the City and District.

### Yuima, Mootamai, and Pauma Municipal Water Districts

Since 1971, these water districts have contracted under their Joint Powers Authority with CAL FIRE to provide fire protection services to the community of Pauma Valley. Under a contractual agreement known as an Amador Plan to provide fire protection services during the winter months when CAL FIRE's Rincon Station would otherwise be closed, Pauma Valley now has year-round fire protection services. Under a contract with San Diego County, a higher level of service is provided by CAL FIRE with the County paying the cost for the higher service level. Yuima Municipal Water District (YMWD) covers 13,460 acres, Mootamai Municipal Water District (MMWD) covers 659 acres, and Pauma Municipal Water District (PMWD) covers 4,323 acres.

## County Service Areas (CSAs)

CSAs are organized under the authority of the BOS and classified as special districts formed within the County to provide park maintenance, fire suppression services and paramedic services. The San Diego County Regional Fire Authority takes administrative oversight responsibility for fire prevention measures in all of the CSAs. CSAs have defined boundaries and most participate in the Fire Mitigation Fee program, which funds facilities and equipment, but the CSAs lack the authority to adopt a fire code or provide official response to planning and building projects. The current CSA's located within the County include the following:

### CSA 107 – Elfin Forest

The Elfin Forest/Harmony Grove Fire Department, Inc. operates under contract with the County of San Diego to provide fire suppression, fire prevention, and medical aid to the residents of CSA 107. CSA 107 is approximately 11 square miles of mostly State responsibility land covered in chaparral. The area is made up of two communities: Elfin Forest and Harmony Grove. The area has about 250 homes of mostly rural estates, a couple of dairies and egg ranches, plus several nurseries and the Elfin Forest Recreational Reserve, a wilderness area. The Elfin Forest/Harmony Grove area is served by twenty-eight volunteer firefighters responding from one station on Elfin Forest Road. The department maintains a 1980 Chevrolet medium rescue vehicle, two 1973 International Type 3 brush rigs, a 1990 International 2200 gallon water tender, and a 2001 HME 1500 gpm Type 1 structure engine.

### CSA 109 – Mount Laguna

CSA 109 was formed in 1983 and covers approximately 33 square miles within the Mount Laguna region, northeast of Pine Valley. It was formed to support the Mount Laguna Volunteer Fire Department, which provides structural fire protection, emergency medical services, vehicle extrication and rescue services to this area. The Department also responds to wildland fires, although wildland protection within this region is predominantly the responsibility of the USFS and to a lesser extent, CAL FIRE. The BOS transferred a share of property tax revenue to the new district upon its formation. These funds became the CSA's base property tax revenue and along with a local benefit fee, provide the financial backing for district operations. Paramedic ambulance transport services are provided through Grossmont Health Care District II. Mount Laguna is a recreational area located on Sunrise Highway in the midst of the Cleveland National Forest, 45 miles east of San Diego. The Mount Laguna Fire Department protects the sixty residents and 300 cabin owners of Mount Laguna and also the over 3 million people who visit annually. The CSA protects approximately 32 square miles. They operate out of one station (station 83), along Sunrise Highway, that protects a primarily rural area.

### CSA 110 – Palomar Mountain

Formed in 1983, CSA 110 provides financial support to the Palomar Mountain Volunteer Fire Department, which provides structural support and wildland fire suppression (though wildland fire is the responsibility of the USFS), EMS, rescue, and fire prevention education to the community of Palomar Mountain and the surrounding area. CSA 110 is located north of State Route (SR) 76 and south of SR-79, and encompasses approximately 40 square miles of Palomar Mountain. When the CSA was formed, the BOS transferred a share of property tax revenue to the new district. These funds became the CSA's base property tax revenue. ALS ambulance service is provided through the Valley Center ALS Ambulance Service Area.

### CSA 111 – Boulevard

This service area encompasses 150 square miles along the Mexican Border, east of Campo and west of Jacumba. The purpose of CSA 111 is to finance operations of the Boulevard Volunteer Fire and Rescue Department (incorporated in 1978), which provides structural fire protection, emergency medical services (EMT-B), vehicle extrication and rescue to this area. The Department is 100 percent volunteer; they have 27 volunteers consisting of fire fighters, officers, and probationary employees. The Department also responds to wildland fires, though wildland protection within this area is predominantly the responsibility of CAL FIRE. When CSA 111 was formed in 1987, the BOS transferred a share of property tax revenue to the district, which became its base property tax revenue. Fire mitigation fees combined with the property tax are the major sources of the CSA's funding. Paramedic ambulance transport is provided through the Grossmont Health Care District II.

### CSA 112 – Campo

This service area includes approximately 47 square miles located on the Mexican Border, east of Tecate and west of Boulevard. It was formed to finance the operation of the Campo Volunteer Fire and Rescue Department, which provides structural fire protection, emergency medical services, vehicle extrication and rescue to this area. The Department also responds to wildland fires, though wildland protection within this area is predominantly the responsibility of CAL FIRE. Upon formation of the CSA, the BOS transferred a share of property tax revenue to the new

district. The property tax revenue and benefit charges are the primary sources of income for this CSA. Paramedic ambulance transport is provided through the Grossmont Health Care District II.

**CSA 113 – San Pasqual**

The CSA was formed in 1983 to finance the operations of the San Pasqual Volunteer Fire Department, which provides structural and wildland fire suppression (though wildland fire responsibilities remain with CAL FIRE) and EMS in the San Pasqual Valley area. The BOS transferred a share of property tax revenue to the new district upon its formation. These funds, along with a local benefit became the CSA's revenue. The CSA is located east of the City of Escondido and north of the City of San Diego and encompasses approximately 20 square miles. ALS ambulance service is provided largely through the City of San Diego and, to a lesser extent, by Medic Ambulances from the Ramona Municipal Water District (RMWD).

**CSA 115 – Pepper Drive**

In 1985, a one-half square mile area east of Santee was detached from the Santee FPD when the District merged with the City of Santee. To ensure continued fire protection to the Pepper Drive area, CSA 115 was formed. The CSA provides structural fire protection and emergency medical services (by contract with the City of Santee), and is funded through a share of the property tax, and contracts with the City of Santee for service. Paramedic ambulance transport is provided through CSA 69.

**CSA 135 – San Diego County Regional Fire Authority**

On June 25, 2008 the County BOS approved a program that merged six volunteer fire companies that help protect the County's rural backcountry: Sunshine Summit Volunteer Fire Company, Intermountain Volunteer Fire Company, Ranchita Volunteer Fire Company, Shelter Valley Volunteer Fire Company, Ocotillo Wells Volunteer Fire Company, and De Luz Volunteer Fire Company. The location of these volunteer companies is shown on Figure 2.13-1. Volunteer companies are authorized under the State Health and Safety Code; however, the companies are private, not public, organizations. The goal of the program is to have two trained personnel staff the station around the clock, along with an active volunteer program. The community volunteers would respond from their home to emergencies.

**California Department of Forestry and Fire Protection (CAL FIRE)**

CAL FIRE is an emergency response and resource protection department that responds to more than 5,600 wildland fires that burn over 172,000 acres in the State on average each year. In addition, department personnel respond on average to more than 300,000 other emergency calls including structure fires, automobile accidents, medical aid, swift water rescues, civil disturbance, search and rescue, floods, and earthquakes. CAL FIRE is the State's largest fire protection organization, whose fire protection team includes extensive ground forces, supported by a variety of fire-fighting equipment. CAL FIRE has joined with federal and local agencies to form a statewide mutual aid system. This system insures a rapid response of emergency equipment by being able to draw on all available resources regardless of jurisdiction.

The principal contractor for the County is CAL FIRE. CAL FIRE is responsible for wildland fire protection on 1.2 million acres of State Responsibility Area (SRA) within the County. CAL FIRE is responsible for fire response services within over 50 percent of the unincorporated County's

total land area, and provides watershed and fire protection on approximately 2,200 square miles of land. Within the County, CAL FIRE operates 18 stations (see Figure 2.13-1), including one air attack base in Ramona. CAL FIRE will respond to structural and vehicular fires and medical emergencies when requested by another fire agency or when these fires threaten to spread to wildlands. CAL FIRE protection areas include SRA, where CAL FIRE has responsibility for emergency services, and Local Responsibility Areas (LRA), where CAL FIRE provides emergency service support for CSAs and fire districts via contracts with the County. Within the County, CAL FIRE operates a total of 18 stations with each station consisting of three career firefighters during fire season.

**U.S. Forest Service (USFS)**

USFS is responsible for fire protection and prevention on federal lands (Federal Responsibility Areas) and private lands within the boundaries of the Cleveland National Forest. USFS operates a total of twelve fire stations in San Diego County (see Figure 2.13-1), and one station in Riverside County. USFS stations in Ramona and Descanso are open year-round while the others are only open during the fire season (late summer/fall). Approximately 42 percent of the USFS emergency calls are related to fire suppression while 50 percent are related to law enforcement. Fires on military installations are suppressed by the Department of Defense (DOD) installation forces. In some instances, DOD installations request assistance from other federal, State or local agencies. Tribal reservation fire departments also provide mutual fire service assistance to unincorporated County areas that are near or bordering the reservation community area.

**Unincorporated Areas with No Fire Protection**

There are very few unincorporated areas (islands) not included within the service area of a public agency that provides fire protection services. Figure 2.13-2 identifies the location of those islands, which represent approximately 12,336 acres. This is less that 0.5 percent of the entire unincorporated area of the County.

Annexation of these un-served islands into fire protection agencies is problematic because State law prohibits a transfer of property tax to fund the additional service area. Typically, residents living within these unserved islands rely on neighboring fire protection districts to respond, and absorb costs, or trust that CAL FIRE will be available and able to divert resources to structural fires. Service to unprotected areas is randomly provided by the surrounding agencies, which take action on a case-by-case basis after considering their resources and assessing the risk of not responding. This issue of un-served islands has been recognized by the LAFCO Commission and LAFCO staff is currently working with local fire districts and cities for possible annexation of these islands.

**Travel Times**

An indicator to determine adequate regional fire protection and emergency medical demand is the ability of the system to respond to every emergency within acceptable time parameters. Travel time is defined as the estimated time it will take for responding emergency personnel to reach the furthest structure in a proposed development project. Travel time is determined by measuring the most direct reliable route with consideration given to safe operating speeds for heavy fire apparatus. Travel time does not include reflex or reaction time, or on-scene size-up and set-up prior to attacking the fire, all of which are critical precursors of actual fire fighting.

Prior to approval of a project, a finding must be made that sufficient fire protection is available or will be available concurrent with the need for all discretionary projects. If the appropriate emergency travel time cannot be met for a proposed discretionary project, the project will be denied unless sufficient mitigation measures are included as a basis of approval based on the recommendations of the DPLU and the Fire Authority Having Jurisdiction (FAHJ). The existing County General Plan sets emergency response travel times for fire agencies as shown in Table 2.13-3. Adequate travel time for a town land use is a maximum of 5 minutes; estate land use is a maximum of 10 minutes; and rural land use is a maximum of 20 minutes. Implementation of the proposed General Plan Update would establish similar travel time standards for the County under the proposed land uses, and are further discussed below under Section 2.13.3.1, Issue: 1 Fire Protection.

The unincorporated region contains approximately 3,576 square miles. Safety personnel are able to reach approximately 40 percent of the total unincorporated region within 10 minutes. Table 2.13-4 provides specific data on travel time for each district that provides fire protection to specific unincorporated areas. Within five minutes or less, only one special district, CSA 115 (Pepper Drive), is able to reach all areas within their jurisdiction. However, this district contracts for services from neighboring full service cities that retain full-time professional emergency personnel and neither district maintains on-site facilities. Additionally, CSA 115 is geographically compact, located in an urbanized area with adequate public road access, and within reasonable distances from a contracting service provider's facilities. Within 10 minutes, three agencies, Bonita Sunnyside FPD, Vista FPD, and the RDDMWD, are able to reach 100 percent of their jurisdictions. Many agencies are able to cover substantial, but not all, portions of their district within 10 minutes. For example, the Rancho Santa Fe FPD reaches 92 percent of its district territory within 10 minutes. As shown in Table 2.13-4, many fire protection districts cannot reach 100 percent of their district with 20 minutes. Response times over 20 minutes are correlated to the inadequacy of roads and facilities in many districts.

Additionally, the majority of fire departments, local districts and service areas provide ambulance services to the unincorporated County. Most firefighters are EMT-certified, and it can be assumed that the amount of time it would take to provide basic life support services can be estimated using fire response times.

Within the unincorporated region, topography, lack of public roads and highways, a prevalence of private roads that do not connect or permit through-access, plus large distances between fire protection and emergency medical facilities, prevent personnel from responding within the accepted travel time standards for protecting life and property.

### *2.13.1.2 Police Protection*

The San Diego County Sheriff's Department (SDSD) is the chief law enforcement agency in San Diego County. SDSD is the fourth largest Sheriff's Department in the U.S. It has a service area of approximately 4,200 square miles and serves a population of over 870,000 people. Approximately 448,700 of these residents are located in the unincorporated areas of San Diego County, while the remainder are located in the following nine cities that contract with SDSD: Vista, San Marcos, Santee, Lemon Grove, Imperial Beach, Poway, Encinitas, Del Mar and Solana Beach. The nine cities that contract with the SDSD typically provide more comprehensive law enforcement services than the unincorporated County. For example, most contract cities have law enforcement personnel dedicated solely to traffic enforcement. The

unincorporated County, on the other hand, relies on California Highway Patrol officers for traffic enforcement on highways and local roads.

SDSD has approximately 4,000 employees, 800 vehicles, and a fleet of helicopters. SDSD operates eight major detention facilities, and provides security for 171 courtrooms and 10 courthouses throughout the County.

## Command Areas

The SDSD service area covers approximately 4,200 square miles. SDSD facilities located in unincorporated areas provide general law enforcement patrol, crime investigation, and crime prevention services. To effectively serve this extensive geographic area, the SDSD Law Enforcement Services Bureau operations are organized under a system of Command stations, substations, offices and storefronts. Table 2.13-5 identifies SDSD Command stations and the communities they serve. These areas are also identified in Figure 2.13-3 along with station and substation locations. A separate rural enforcement area addresses the special needs of outlying areas patrolled by resident deputies. The operational structure is flexible, and areas may be realigned in order to provide better response to citizen calls for service, to ensure a balance of resources, and to be more responsive to community needs.

The SDSD Law Enforcement Operations Command Areas have further been divided into beat districts which serve the unincorporated County. Table 2.13-6, identifies the existing population served by each beat district. Beat areas that currently service the largest population and housing bases include El Cajon (17,932 housing units and 51,497 persons), Spring Valley (23,584 housing units and 73,077 persons), Lakeside (18,328 housing units and 52,558 persons), Fallbrook (15,793 housing units and 45,586 persons), Ramona (11,528 housing units and 35,383 persons), and Escondido (9,293 housing units and 26,438 persons).

## Response Times

In calendar year 2007, SDSD personnel responded to approximately 250,663 calls for service in the unincorporated areas and in the nine cities that maintain contracts with the SDSD. According to the SDSD, approximately 57 percent of service calls were generated from contract cities while 43 percent of service calls were generated from the unincorporated County in 2006. A call for service is registered when a citizen or law enforcement personnel requests assistance for public safety services. Examples of calls for service include crimes reported by the public such as burglaries, assaults, and thefts.

Calls are assigned a priority based on the nature of the incident and the level of urgency. Priority 1 is considered the highest priority and includes officer assistance and/or vehicular pursuit calls. Priority 2 calls include injured persons, robbery in progress, bomb threats, carjacking, rape, and stolen vehicles. Priority 3 calls include assaults, prowlers, disturbances, tampering with vehicles, and burglary alarms. Finally, Priority 4 calls are the lowest priority calls and include security checks, animal noise disturbances, traffic stops, harassing phone calls, illegal dumping, and abandoned vehicles. Response times are used as guidelines to measure adequate levels of service.

Table 2.13-7 identifies 2007 response times for command areas within the unincorporated County, which was the most current data available at the time that this EIR Notice of Preparation was issued. According to data provided by the SDSD Crime Analysis Unit, the

2007 average response time for non-priority calls within the unincorporated County was approximately 30 minutes while the average response time for priority calls within the unincorporated area was approximately 16 minutes. Response times vary greatly between command areas. Typically, response times in urbanized or built-out areas are lower than in areas that are rural, and characterized by spaced or scattered development patterns. For example, the average non-priority response time in the Julian Command Area was approximately 25 minutes while the average in the San Marcos Station Area was about 41 minutes. The average priority call response time in the Ramona Command Area was approximately 10 minutes while the average in the Ranchita Substation Area was about 25 minutes. The 2007 data shows that SDSD response times vary greatly across the areas served based on geography and population density.

### *2.13.1.3 Schools*

**Public Schools**

Public schools and educational facilities are mandated by the State Department of Education and administered by the San Diego County Board of Education and the San Diego County Office of Education. Thirty-seven unified, elementary, and high school districts provide service to the residents of the unincorporated County. Nine of these districts serve the unincorporated area only, while 28 serve both unincorporated and incorporated areas. The name of these districts, their service area and acreage is listed in Table 2.13-8. Additional data for each district serving the unincorporated County, including the number of schools, enrollment size, pupil teacher ratio and average class size, is included in Table 2.13-9. In total, approximately 639 schools serve the unincorporated County with an approximate total student enrollment of 444,487. The average pupil teacher ratio for schools serving the unincorporated County is 1 teacher to every 21 students and the average class size is around 24 students. Although one type of district might overlap with another type of district, districts of the same classification do not overlap with one another. For example, an elementary school district and a high school district might serve the same area; however two elementary school districts would not have overlapping areas within both of their service boundaries. Figure 2.13-4 depicts the boundaries for elementary school districts within the County and Figure 2.13-5 depicts the boundaries for high school districts within the County.

Table 2.13-10, identifies the existing population served by each school district. School districts that currently service the largest population and housing bases include Grossmont Union High (74,245 dwelling units and 217,994 population); Cajon Valley Union Elementary (25,858 dwelling units and 74,538 population); Fallbrook Union High (21,307 housing units and 61,847 population); and Fallbrook Union Elementary (15,786 housing units and 46,378 population).

Overcrowding in public schools is caused by increases in student enrollment. In April 2003, 65 schools within four school districts were identified as overcrowded under the criteria set by the State. To be classified as a Critically Overcrowded School, a school must have a pupil density greater than 115 pupils per acre for grades kindergarten to six and 90 pupils per acre for grades seven to twelve. None of the schools listed on the State's Critically Overcrowded School list are located within the unincorporated County, however, all four Districts listed (Escondido Union Elementary, San Diego City Unified, Sweetwater Union High, and Vista Unified) serve unincorporated students.

**Community Colleges and Public Universities**

There are a number of private, public, and technical/professional schools that serve the County. In the San Diego region, more than 175,000 students attend institutions of higher education with more than 12,000 of those students graduating each year. These students attend a number of private, public, and technical/professional schools that serve the County. Table 2.13-10 identifies the major academic institutions and technical/professional schools in the County.

## *2.13.1.4 Libraries*

**San Diego County Library**

The San Diego County Library (SDCL) system serves over one million residents in the County's unincorporated communities of: 4S Ranch, Alpine, Bonita, Borrego Springs, Campo, Casa de Oro, Crest, Descanso, Fallbrook, Jacumba, Julian, Lakeside, Lincoln Acres, Pine Valley, Potrero, Rancho San Diego, Ranch Santa Fe, Spring Valley, and Valley Center. Incorporated cities served by the SDCL system include Del Mar, El Cajon/Fletcher Hills, Encinitas/Cardiff, Imperial Beach, La Mesa, Lemon Grove, Poway, San Marcos, Santee, Solana Beach and Vista. In addition, two bookmobiles serve more remote and underserved areas. Residents visited County library branches more than 4.3 million times in 2008. They borrowed over 6.6 million books, CDs, DVDs, and other material, an increase of more than 100 percent from 2001. SDCL has a vigorous and dynamic community programming component, attracting over 300,000 attendees a year, a number that has nearly tripled since 2005. In 1996, the County BOS adopted recommended Standards of Library Service. Library branches are assigned to a particular category based on a combination of factors including the size of branch location, the population served, and the volume of materials checked out. A particular branch's category may change over time because of new the construction or changes in population (increases or decreases). Table 2.13-12 lists SDCL library facilities by size and facility requirement. SDCL anticipates increased demand for services due to expected population growth and expanded development in unincorporated areas.

Table 2.13-13, identifies the existing population served by each library. Libraries that currently service the largest population and housing bases include Fallbrook (16,812 housing units and 48,356 population); Rancho San Diego (16,238 housing units and 47,640 population); Ramona (11,860 housing units and population); Spring Valley (10,678 housing units and population); and San Marcos (10,620 housing units and population).

**San Diego County Public Law Library**

The San Diego County Public Law Library (SDCPLL) is a public institution that is open to the general public. SDCPLL provides County residents access to information concerning the laws that affect them. SDCPLL has four locations that serve San Diego residents, including downtown San Diego, Chula Vista, El Cajon and Vista. Library membership is available to San Diego County residents and all California attorneys. An annual membership fee, as well as refundable security deposit, is required for book and material loan privileges.

## 2.13.2 Regulatory Framework

### *2.13.2.1 State*

**California Health and Safety Code (Section 13000 et seq.)**

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all State-owned buildings, State-occupied buildings, and State institutions throughout California.

**California Code of Regulations (CCR) Title 24, Part 2 and Part 9**

Part 2 of Title 24 of the CCR refers to the California Building Code which contains complete regulations and general construction building standards of state adopting agencies, including administrative, fire and life safety and field inspection provisions. Part 2, was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. Part 9 refers to the California Fire Code which contains fire-safety-related building standards referenced in other parts of Title 24. This Code is preassembled with the 2000 Uniform Fire Code of the Western Fire Chiefs Association. This Code was revised in January 2008 with a change in the base model/consensus code from the Uniform Fire Code series to the International Fire Code.

**California Public Resources Code (PRC) Sections 4201-4204**

This section of the PRC was amended in 1982 to require the California Department of Forestry to classify all SRAs into fire hazard severity zones. The purpose of this code is to provide classification of lands within state responsibility areas in accordance with the severity of fire hazard present for the purpose of identifying measures to be taken to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life or property.

**State Responsibility Area (SRA) Fire Safe Regulations (Title 14 Natural Resources, Department of Forestry Fire Protection)**

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Title 14 regulates that the future design and construction of structures, subdivisions and developments in an SRA shall provide for basic emergency access and perimeter wildfire protection measures.

**Subdivision and Fire Hazards Bill AB 2447 (CURRENTLY UNDER REVIEW)**

AB 2447 would require the legislative body of a County to deny approval of a tentative map for development, or a parcel map for development, if the proposed project is in a SRA or a very

high fire hazard sensitivity zone. The exception to AB 2447 includes projects that obtain written verification from each fire protection agency having jurisdiction over the project site or provide verification that there will be sufficient structural fire protection for the structures created by the proposed project. AB 2447 would also authorize the State Board of Forestry and Fire Protection to adopt a regulation that provides for exceptions to the above requirement.

**California Department of Education (CDE)**

The CDE administers California's public education system at the State level and the State Board of Education, by statute, is the governing and policy-determining body of the CDE. The Board adopts rules and regulations for the government of the State's public schools. It also adopts curriculum frameworks in core subject-matter areas, approves academic standards for content and student performance in the core curriculum areas, and adopts tests for the Standardized Testing and Reporting program and the California High School Exit Examination.

**Assembly Bill 16 (AB 16)**

In 2002, AB 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program (SFP). SFP provides State funding assistance for two major types of facility construction projects: new construction and modernization. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the CDE, to apply for new construction projects in advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply.

**California Public Schools Accountability Act of 1999**

This act authorized the creation of an educational accountability system for California public schools. Its primary goal is to help schools improve and to measure the academic achievement of all students. The cornerstone of this Act is the Academic Performance Index (API) which measures the academic performance and growth of schools on a variety of academic measures.

### *2.13.2.2 Local*

**County of San Diego, Consolidated Fire Code**

With the change in the State Fire Code to the International Fire Code as a model code, the County adopted the County Fire Code effective January 2008. When fire districts adopt the 2008 County Fire Code with or without local modification, the Fire Services Coordinator, Department of Planning and Land Use, will bring ordinances in a codified form to the BOS for ratification or modification. The resulting document, when approved by the BOS, will be an updated County Consolidated Fire Code.

**San Diego County BOS Policy I-84, Project Facility Availability and Commitment for Public Sewer, Water, School and Fire Services**

BOS Policy I-84 establishes procedures for using Project Facility Availability forms, and in certain cases, Project Facility Commitment forms, for the processing of major and minor subdivisions and certain other discretionary land use permits. These standardized procedural forms have been used to: 1) obtain information from special districts and other facility providers regarding facility availability; 2) ensure that this information is reviewed by the appropriate decision-making body; and 3) provide data to the facility provider in order to determine what capital improvements are required to serve the proposed project.

## 2.13.3 Analysis of Project Effects and Determination of Significance

### *2.13.3.1 Issue 1: Fire Protection Services*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

**Impact Analysis**

Under the proposed General Plan Update, new development would be constructed in designated areas to accommodate a reasonable share of the region's projected population growth, which would increase the need for fire protection services. The need for increased fire protection services would result in the need for new or expanded fire protection facilities, the construction of which could have adverse environmental impacts.

Under the proposed General Plan Update, the travel times for emergency fire response would be required to achieve the standards shown in Table 2.13-14. Similar to existing standards, densely populated areas would have travel times of 5 minutes or less, while extremely rural lands, such as limited semi-rural residential, would have travel times 20 minutes or less. Implementation of the proposed General Plan Update would allow very-low rural land densities to have travel times over 20 minutes. Table 2.13-4 presents 2005 fire travel distance ratings for fire protection agencies, in 5, 10 and 20 minute standards. As shown in Table 2.13-4, many fire protection districts are unable to reach their entire service area in 20 minutes or less, and therefore would not meet required County travel time standards identified in the proposed General Plan Update. To maintain acceptable service ratios, the construction or expansion of new fire facilities would be required, which would have the potential to result in substantial adverse impacts to the environment.

Implementation of the proposed General Plan Update would direct population and housing growth into the western portions of the unincorporated County, generally into areas where infrastructure and service systems already exist. Fire protection agencies that currently provide services to the western portions of the unincorporated County include Deer Springs FPD,

Lakeside FPD, North County FPD, Rancho Santa Fe FPD, San Diego Rural FPD, San Miguel FPD, RMWD, and San Marcos FPD. As shown in Table 2.13-4, none of these fire protection agencies were able to reach all portions of their service areas in less than 5 minutes in 2009. Increasing population and housing in areas that are not currently able to meet travel time goals would result in the need for new or expanded fire facilities to be constructed so that acceptable travel times can be met.

Table 2.13-2 identifies projected housing unit and population increases in fire agency service areas under implementation of the proposed General Plan Update. As shown in this table, all 27 fire agencies (CAL FIRE not included) would experience a growth in population and housing units within their service areas under implementation of the General Plan Update. Fire agencies that would experience the greatest percentage growth in housing units and population under implementation of the General Plan Update include Borrego Springs FPD (374 percent increase in population and housing units), CSA 110 (228 percent increase in housing units and 220 percent increase in population), PMWD (223 percent increase in housing units and 222 percent increase in population), Valley Center FPD (140 percent increase in population and housing units), and Alpine FPD (130 percent increase in population and housing units).

Fire protection agencies that will service the greatest population and number of housing units under implementation of the General Plan Update (see Table 2.13-2) include San Miguel Consolidated FPD (52,585 housing units and 156,654 persons), North County FPD (25,815 housing units and 68,790 persons), Lakeside FPD (24,033 housing units and 68,790 persons), and RDDMWD (18,915 housing units and 56,884 persons). It should be noted that although under implementation of the General Plan Update these fire agencies would serve the greatest population and housing, they generally would not experience a substantial percentage growth when compared to existing conditions.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Multiple State and local regulations exist that pertain to fire protection services. State regulations include the: California Health and Safety Code, which regulates fire protection standards in buildings; CCR Title 24, which contains fire and life safety regulations and general construction building standards; California Fire Plan, which acts as the state's road map for reducing the risk of wildfire; PRC, which designates SRA fire hazard severity; and SRA Fire Safe Regulations, which constitute basic wildland fire protection standards in California.

Locally, the County Consolidated Fire Code guides fire protection standards within the County. In addition, construction and building fire standards are included throughout various sections (Section 35.201 et seq.) of the San Diego Code of Regulatory Ordinances Section 35.201. The County also requires that development projects include in their applications the necessary availability and commitment letters demonstrating sufficient fire service availability with adequate travel time verified between the available facilities and the most distant habitable structure in the project. This requirement is further enforced with BOS Policy I-84.

New or expanded fire protection facilities proposed under the County's jurisdictional authority are typically required to obtain a Site Plan or Major Use Permit. These permit types must comply with applicable regulations protecting environmental resources, such as the San Diego County Zoning Ordinance, Section 6905, the Noise Ordinance, the RPO, the Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO), and BOS Policy I-84. In addition, any future facility development for fire agencies would be required to

conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the construction of fire agency facilities may be significant and unavoidable, such as impacts associated with noise, traffic, hydrology/water quality, and/or biological resources.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that help reduce substantial adverse physical impacts associated with the provision or need for new or physically altered fire protection facilities. Within the Land Use and Safety Elements, various goals include specific policies to minimize deterioration of fire agency response times and environmental impacts related to the construction or expansion of additional facilities.

In the Land Use Element, Goal LU-1 proposes a land use plan that sustains the intent and integrity of the Community Development Model and the boundaries between Regional Categories. Policy LU-1.4 restricts village expansion on the condition that public services can support the expansion without a reduction of services to other County residents. Permitting expansion into areas with sufficient services reduces the need to construct additional facilities, thereby reducing environmental impacts. Goal LU-6 proposes a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policies LU-6.4 and LU-6.11 support this goal by requiring sustainable subdivision design and development, so that fire hazards are reduced. Requiring new development to incorporate fire safety and defensible building practices reduces reliance on the fire protection agency, allowing existing fire protection facilities to reach larger areas. Preventing fire hazards in the future reduces the need for construction or expansion of additional fire facilities to serve future increases in fire demand. Goal LU-12 promotes sustainable infrastructure, public facilities, and essential services that meet the community needs and are provided concurrent with growth and development. Policies LU-12.3 and LU-12.4 support this goal by planning for compatibility and infrastructure and services compatibility.

In the Safety Element, Goal S-3 supports development that would minimize injury, loss of life, and damage to property from structural or wildland fire hazards. Policy S-3.4 would locate development where there is service availability. Goal S-5 is regional coordination among fire protection agencies. Policies S-5.1 and S-5.2 support this goal by encouraging regional coordination and supporting fire service provider agreements. Goal S-6 promotes adequate levels of fire and EMS in the unincorporated County. Policies S-6.1, S-6.2, S-6.3, S-6.4 and S-6.5 support this goal by ensuring development has adequate fire protection services and funding.

**Summary**

The proposed General Plan Update provides land use designations that would increase population and housing within the unincorporated County, largely within the western areas. The population and housing increase projected under the proposed General Plan Update would increase the demand for fire protection agency services. To maintain or achieve acceptable travel time standards for fire protection, it is reasonably foreseeable that the provision of new or

physically altered fire facilities would be required, which would have the potential to result in adverse environmental impacts. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with fire protection facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the construction or expansion of fire protection facilities and specific implementation programs are identified as mitigation.

### *2.13.3.2 Issue 2: Police Protection Services*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

**Impact Analysis**

SDSD staffing goals and facility plans are based upon population. Generally, SDSD has a goal of providing one patrol position per 10,000 residents. Response time standards are typically applied in a facility-based model where the emergency services always start at a defined point (i.e., a fire station). SDSD does not have adopted response time standards because deputies respond to calls for service while they are already out on patrol and the response time will vary depending on the deputy's current location, his/her availability (e.g., he/she may already be working on a higher priority call), and the type of call (e.g., a priority call may be a "cover call" requiring that two deputies respond and the call won't be dispatched until two deputies are available).

Implementation of the proposed General Plan Update would designate areas of increased residential land use densities in order to accommodate projected population growth, generally within western portions of the unincorporated County. The projected population growth would result in a need for increased police services, including the potential need for new police facilities in order to maintain levels of service. Table 2.13-6 identifies projected housing and population growth within SDSD beat areas under the proposed General Plan Update. As shown in this table, all SDSD beat areas, excluding Camp Pendleton, would experience growth in population and housing under the General Plan Update. SDSD beat areas that would experience the greatest percentage growth in housing and population under implementation of the General Plan Update include Borrego Springs (326 percent increase in housing and 325 percent increase in population), Tecate (228 percent increase in housing and population), Santa Ysabel (214 percent increase in housing and 179 percent increase in population), Ranchita (183 percent increase in housing and 172 percent increase in population), Pauma Valley (145 percent increase in housing and 147 percent increase in population), Valley Center (127 percent increase in housing and population), Warner Springs (119 percent increase in housing and population), Palomar Mountain (115 percent increase in housing and population), and Jacumba (104 percent increase in housing and 103 percent increase in population).

Sheriff's beat areas that would serve the greatest population and housing units under the proposed General Plan Update include Spring Valley (25,324 housing units and 78,505 population), Fallbrook (23,041 housing units and 66,523 population), El Cajon (20,812 housing units and 59,766 population), Lakeside (20,759 housing units and 59,528 population), Ramona (17,561 housing units and 53,854 population), and Escondido (16,767 housing units and 48,207 population). It should be noted that although these beat areas would serve the greatest population and housing units under the General Plan Update, they generally would not experience substantial percentage growth when compared to existing conditions (year 2004).

To plan for future growth, the SDSD completed a two-year planning effort in 2005 that culminated in a Law Enforcement Facilities Master Plan (LEFMP). This plan was prepared to guide facility decisions and development over the next 15 years. The plan assessed the condition, design, location and command alignment of existing facilities, and concurrently analyzed various factors which could affect future service levels. The report tracked areas anticipated for growth as identified in population projections prepared by SANDAG, and incorporated crime and calls-for-service data, as well as numerous other factors to provide a reasonable basis for distributing staff and facilities. The LEFMP calls for a number of new facilities and the replacement or renovation of older buildings that no longer support the law enforcement mission. Projects proposed in the LEFMP are shown in Table 2.13-15. As shown in this table, the SDSD has prioritized Sheriff's stations or substations that require new or expanded facilities into priority categories one through four. This table also shows the approximate date of occupancy for the proposed facilities improvements.

**Federal, State and Local Regulations and Existing Regulatory Processes**

There are not many regulations that specifically pertain to this issue of law enforcement facilities. As noted above, the LEFMP was prepared to guide facility decisions and development over the next 15 years. New or expanded facilities proposed under the County's jurisdictional authority are typically required to obtain a Site Plan or Major Use Permit. These permit types must comply with applicable regulations protecting environmental resources, such as the Zoning Ordinance Section 1346 et seq., the Noise Ordinance, the RPO, and the WPO.

In addition, any future facility development for SDSD law enforcement services would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the construction of police protection facilities may be significant and unavoidable, such as noise, hydrology/water quality, and biology.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that would reduce substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities or the need for new for physically altered police protection facilities. Within the Land Use Element, various goals include specific policies to minimize the deterioration of police response times and reduce impacts related to the construction or expansion of additional facilities needed to serve the projected population growth of the unincorporated County.

Within the Land Use Element, Goal LU-1 creates a land use plan that sustains the intent and integrity of the Community Development Model and the boundaries between Regional Categories. Policy LU-1.4 supports this goal by restricting village expansion on the condition that public services can support the expansion without a reduction of services to other County residents. Allowing expansion into areas with sufficient services reduces the need to construct additional facilities, thereby reducing environmental impacts. Goal LU-12 promotes sustainable infrastructure, public facilities, and essential services that meet the community needs and are provided concurrent with growth and development. Policies LU-12.3 and LU-12.4 support this goal by planning for compatibility and infrastructure and services compatibility.

**Summary**

Implementation of the proposed General Plan Update would designate areas of increased land use densities in the unincorporated County in order to accommodate projected population growth. The projected population and housing growth in the County would result in a need for increased law enforcement services, including the potential need for new facilities to maintain levels of service, the construction of which would potentially result in adverse environmental effects. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with police protection facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the construction or expansion of police protection facilities and specific implementation programs are identified as mitigation.

### *2.13.3.3 Issue 3: School Services*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

**Impact Analysis**

Educational facilities within the unincorporated County have their own State mandated requirements to ensure a high quality of life for all the citizens of San Diego County. School districts offer education to all school-age residents of the region, but operate entirely independent of the County of San Diego government. School districts were created by the State and are subject to the overview of the State Legislature. Elected governing school boards are responsible for budgeting and decision-making. The State Department of Education establishes school site and construction standards.

There are 37 school districts that serve the unincorporated County of San Diego. The location of these districts is shown in Figure 2.13-4 and Figure 2.13-5. Table 2.13-10, identifies the population and housing units within each school district, under existing conditions and proposed build-out of the General Plan Update. As shown in this table, all school districts serving the unincorporated County, with the exception of Lemon Grove Elementary and Oceanside United

Districts, would experience growth in both housing units and population under implementation of the General Plan Update. School districts that would experience the greatest housing unit and population growth under implementation of the General Plan Update include Borrego Springs Unified (345 percent increase in housing and population), San Pasqual Elementary (222 percent increase in housing and 221 percent increase in population), Santa Ysidro Elementary (200 percent increase in housing and 209 percent increase in population), Warner Unified (136 percent increase in housing and 132 percent increase in population), Valley Center-Pauma Unified (124 percent increase in housing and 125 percent increase in population), and Encinitas Union Elementary (114 percent increase in housing and 115 percent increase in population).

School districts that would serve the greatest population and number of housing units under implementation of the General Plan Update include Grossmont Union High (87,127 housing units and 255,263 population), Fallbrook Union High (30,492 housing units and 88,112 population), Cajon Valley Union Elementary (29,220 housing units and 84,202 population), La Mesa-Spring Valley Elementary (24,396 housing units and 75,286 population), Fallbrook Union Elementary (21,327 housing units and 62,531 population), Valley Center-Pauma Unified (17,888 housing units and 51,130 population) and Ramona City Unified (17,711 housing units and 54,316 population). It should be noted that although these Districts would service the greatest total population and housing units under the General Plan Update, not all would experience substantial percentage growth when compared to existing conditions.

During the past ten years, the school-age population has grown considerably, sometimes at rates of up to 20 percent. The current growth projections show a slight decline between the 2007/2008 and the 2008/2009 school year, followed by a moderate increase in the enrollment rate up to the 2017-2018 school year. These projections are shown in Table 2.13-16. As discussed in Section 2.13.1.3 above, the California Department of Education identified 65 San Diego County public schools as being overcrowded under the criteria set forth in the Critically Overcrowded School program. Overcrowding in schools is caused by increases in student enrollment without expansion of facilities to accommodate the increases. The proposed General Plan Update would result in housing and population growth throughout the unincorporated County, which would result in an increase in school enrollment. To maintain acceptable service ratios, the construction of new or expanded school facilities would be required.

Current and future modernization, expansion, and new school construction plans exist for all school districts in the County. The Facility Planning Services (FPS) unit of the San Diego COE provides direct assistance to school districts in planning for facilities and gaining the financial resources necessary to construct or modernize those facilities. Tasks performed by the FPS unit include guiding districts through the State School Facility Program for school construction funding; assisting school districts in dealing with local, State and federal agencies; and coordinating school districts input to regional planning policy organizations (e.g., SANDAG).

**Federal, State and Local Regulations and Existing Regulatory Processes**

Multiple State regulations exist to ensure school facilities are adequate within the County. These include the CDE, which is the regulating body for California's public education system; AB 16, which established the COS program; and the California Public Schools Accountability Act, which created academic performance measures.

Locally, the County requires that development projects include in their applications the necessary availability and commitment letters demonstrating sufficient school service availability. This requirement is further enforced with BOS Policy I-84.

In addition, future development of school facilities would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the construction of school facilities may be significant and unavoidable, such as noise, hazards, and biology. Projects proposing the construction or expansion of school facilities would be approved by the individual school districts and would not be subject to discretionary approval by the County. School districts are able to serve as their own lead agencies under CEQA.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that pertain to the provision of adequate school services. In the Land Use Element, Goal LU-1 proposes a land use plan that sustains the intent and integrity of the Community Development Model and the boundaries between Regional Categories. Policy LU-1.4 restricts village expansion on the condition that public services can support the expansion without a reduction of services to other County residents. Permitting expansion into areas with sufficient services reduces the need to construct additional facilities, thereby reducing environmental impacts. Goal LU-9 creates well defined, planned, and developed community cores, such as villages and town centers that contribute to a community's identity and character. Policy LU-9.7 supports this goal by encouraging new school development in town centers and villages. Goal LU-12 promotes sustainable infrastructure, public facilities, and essential services that meet the community needs and are provided concurrent with growth and development. Policies LU-12.3 and LU-12.4 support this goal by planning for compatibility and infrastructure and services compatibility.

Goal LU-17 creates quality schools that enhance our communities and mitigate for their impacts. Policies LU-17.1, LU-17.2, LU-17.3, and LU-17.4 support this goal by setting standards for new school development in a manner that would reduce hazardous, transportation and visual impacts. Goal LU-18 promotes civic uses that enhance community centers and places. Policy LU-18.2 supports this goal by encouraging the co-location of civic uses such as libraries, community centers, parks and schools.

**Summary**

The proposed General Plan Update would accommodate project increases in population and housing within the unincorporated County, which would result in an increase in school enrollment. To maintain acceptable service ratios, the construction of new or expanded school facilities would be required. The construction of these facilities would have the potential to result in significant environmental impacts. However, the planning, design, approval and construction of school facilities is not within the County's jurisdiction; it is the responsibility of the individual school districts. Therefore, although the individual school districts are required to prepare plans for the accommodation of future growth in their district service areas, the County can not guarantee that impacts associated with the development of new school facilities would

not have a significant impact on the environment. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with provision of school facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the construction or expansion of school facilities and specific implementation programs are identified as mitigation.

### *2.13.3.4 Issue 4: Other Public Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities.

**Impact Analysis**

The following discussion evaluates the adequacy of public library facilities in the unincorporated County to serve the projected population growth in the unincorporated County. As discussed above, the proposed General Plan Update would accommodate projected population growth by increasing land use densities in some areas of the County. The projected increase in population growth would result in an increase in the number of persons that must be provided with public library services. The minimum space service goal for the SDCL system is 0.5 square feet per capita. Currently, there are 35 libraries in the entire County, 20 of which fall below the minimum space service goal. As shown on Table 2.13-12, the following libraries are considered to be in a facility space deficit: Alpine, Borrego Springs, Casa de Oro, Crest, Fallbrook, Jacumba, Lakeside, Lincoln Acres, Ramona, Rancho San Diego, Spring Valley, Cardiff-by-the-Sea, El Cajon, Fletcher Hills, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, and Vista. Eleven of these libraries are located within the unincorporated County. The remainder of the libraries within the SDCL system are able to maintain the service goal discussed above and are considered adequate to serve the public.

Implementation of the proposed General Plan Update would designate areas of increased residential land use densities in order to accommodate projected population growth, generally within western portions of the unincorporated County. The projected population growth would result in a need for increased library services, including the potential need for new library facilities in order to maintain adequate service levels. Table 2.13-13 identifies projected housing and population growth within library service areas under implementation of the proposed General Plan Update. As shown in this table, the majority of library service areas would experience growth in population and housing under implementation of the General Plan Update. Library service areas that would experience the greatest percentage growth in housing and population under the General Plan Update include Potrero (253 percent increase in housing and 255 percent increase in population); Borrego Springs (245 percent increase in housing and population); Valley Center (111 percent increase in housing and 115 percent increase in

population); and the North Bookmobile (105 percent increase in housing and 106 percent increase in population).

As shown in Table 2.13-13, SDCL libraries that would serve the greatest population and housing units under the General Plan Update include Lakeside (21,311 housing units and 59,109 population), San Marcos (20,038 housing units and 59,393 population), Rancho San Diego (18,252 housing units and 53,608 population), Ramona (18,184 housing units and 55,747 population), and North Bookmobile (14,739 housing units and 40,293 population). It should be noted that although these SDSL library facilities would serve the greatest population and number of housing units under the General Plan Update, they generally would not experience substantial percentage growth when compared to existing conditions.

The SDCL system has created a Strategic Plan that identifies goals and objectives of the Library System from 2007-2012. Within this plan, goals are identified that involve financial management and fundraising strategies so that library facilities can be enhanced in the upcoming years. Additionally, the Strategic Plan identifies the need to develop and implement a facilities plan, which would guide the construction of library facilities in the future. Multiple Capital Improvement Projects are underway to increase the service capacity of the SDCL. One project is a replacement Fallbrook Library of approximately 16,500 square feet, which is more than twice the size of the current 8,100 square-foot facility. Funding for the design and construction of the Fallbrook Library Project was approved in March 2008. In addition, a larger Ramona Library to replace the current 5,000 square-foot building was approved in October of 2008. A proposed new Lincoln Acres Library is planned on the current site in conjunction with the Department of Parks and Recreation, replacing the aging 854 square-foot facility with approximately 4,000 square feet. As of 2008, smaller construction projects were also underway for the Valley Center Branch Library, Bonita Branch Library, and Cardiff Branch Library. The Alpine Branch Library Land Acquisition was approved in March 2008. Finally, SDCL has multiple construction and expansion projects planned for the future within the unincorporated County.

**Federal, State, and Local Regulations and Existing Regulatory Processes**

There are not many regulations that specifically pertain to this issue of library services and facilities. As noted above, the SDCL Strategic Plan identifies the need to develop and implement a facilities plan. New or expanded library facilities proposed under the County's jurisdictional authority are typically required to obtain a site plan or a use permit. These permit types must comply with applicable regulations protecting environmental resources, such as the Zoning Ordinance Section 1205 et seq., the Noise Ordinance, the RPO, and the WPO.

In addition, any future facility development by the County of San Diego would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the construction of fire agency facilities may be significant and unavoidable, such as impacts to noise, hydrology/water quality, and biological resources.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that would reduce environmental impacts associated with the need to construct additional library facilities. Within the Land Use Element, Goal LU-1 proposes a land use plan that sustains the intent and integrity of the Community Development Model and the boundaries between Regional Categories. Policy LU-1.4 restricts village expansion on the condition that public services can support the expansion without a reduction of services to other County residents. Permitting expansion into areas with sufficient services reduces the need to construct additional facilities, thereby reducing environmental impacts. Goal LU-9 creates well defined, planned, and developed community cores, such as villages and town centers that contribute to a community's identity and character. Policies LU-9.4 and LU-9.7 support this goal prioritizing infrastructure serving villages and community cores and town centers. Goal LU-12 promotes sustainable infrastructure, public facilities, and essential services that meet the community needs and are provided concurrent with growth and development. Policies LU-12.3 and LU-12.4 support this goal by planning for compatibility and infrastructure and services compatibility. Goal LU-18 is to provide adequate civic uses that enhance community centers and places. Policies LU-18.1 and LU-18.2 support this goal by encouraging the co-location of civic uses and compatibility of civic uses with community character.

**Summary**

The proposed General Plan Update would accommodate projected population growth by increasing land use densities in some areas of the County. The projected increase in population growth would result in an increase in the number of persons that must be provided with public library services. In order to maintain the SDCL library service ratio, the additional construction or expansion of library facilities would potentially be required, which would have the potential to result in significant environmental impacts. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with the provision of library facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the construction or expansion of library facilities and specific implementation programs are identified as mitigation.

## 2.13.4 Cumulative Impacts

The geographic scope of cumulative impact analysis for public services includes the entire County, including both incorporated and unincorporated areas, whose population is served by many individual public service providers with specific service areas.

### *2.13.4.1 Issue 1: Fire Protection Services*

Fire protection services within the region often cross inter-jurisdictional boundaries. Cumulative projects would result in a need for additional fire protection services to serve new development. Cumulative projects proposed under general plans of surrounding cities and counties, such as commercial, residential or industrial projects, would require fire protection services from fire agencies within the region. Private projects currently in process in the County that are not included in the General Plan Update land use map, including large developments proposed

under General Plan amendments, Tentative Parcel Maps, Major Use Permits, and rezones, would also require fire protection services. The Forest Conservation Initiative (FCI) remapping project would require fire protection services if areas previously identified as FCI are designated for land uses such as residential, commercial or industrial. Cumulative projects involving casino and resort development on tribal lands would also require fire protection services. In order to maintain adequate travel times to serve cumulative projects, the construction or expansion of fire protection facilities would be required, which would have the potential to result in an adverse impact on the environment. While the majority of cumulative fire protection projects would undergo environmental review, and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for fire services, which would have the potential to result in a significant cumulative impact. Therefore, cumulative projects would result in a significant cumulative impact associated with the construction of fire facilities.

As discussed above, the development of future land uses as designated in the proposed General Plan Update would increase demand for fire protection services requiring the provision of new or physically altered fire facilities, which would have the potential to result in adverse environmental impacts. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with fire protection services.

### *2.13.4.2 Issue 2: Police Protection Services*

Cumulative projects in the San Diego region would require increased police protection services to serve new development. Cumulative projects proposed under general plans of surrounding cities and counties, such as commercial, residential or industrial projects, would require police services. Private projects currently in process in the County that are not included in the General Plan Update land use map, including large residential developments proposed under General Plan amendments, Tentative Parcel Maps, Major Use Permits and rezones would require police protection services. Additionally, the SANDAG and SCAG RTPs would allow for increased roadway development in the region which would require the addition of highway patrol officers and construction of new police facilities to maintain adequate police services on these roads. The increase in demand for police protection services from implementation of cumulative projects would have the potential to result in the need to construct or expand existing police facilities, which would have the potential to create an adverse impact on the environment. While the majority of cumulative projects would undergo environmental review, and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for police services, which would have the potential to result in a significant cumulative impact. Therefore, cumulative projects would result in a significant cumulative impact associated with the construction of police facilities.

As discussed above, the development of future land uses as designated in the proposed General Plan Update would increase demand for police protection services requiring the provision of new or physically altered police facilities, which would have the potential to result in adverse environmental impacts. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with police protection services.

### 2.13.4.3 Issue 3: School Services

Cumulative projects that involve residential development would increase the public school population in the region and require the construction or expansion of school facilities so that adequate service ratios are maintained. Examples of such projects include General plans of the surrounding cities and counties; private projects not included in the General Plan Update land use map, including large development proposed under General Plan amendments, Tentative Parcel Maps, Major Use Permits and rezones; and FCI remapping, if land uses are re-designated as residential or residential densities are increased in existing residential areas. An increase in student population would require the construction or expansion of school facilities, which would result in adverse environmental impacts. While the majority of cumulative projects would undergo environmental review, and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for school facilities, which would have the potential to result in a significant cumulative impact. Therefore, cumulative projects would result in a significant cumulative impact associated with the construction of school facilities.

As discussed above, the development of future land uses as designated in the proposed General Plan Update would increase demand for school facilities requiring the provision of new or physically altered school facilities, which would have the potential to result in adverse environmental impacts. In addition, school districts would act as the lead agency to approve school related construction projects, and therefore the County would not be able to ensure that the construction of new school facilities would not have significant impacts to the environment. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with school facilities.

### 2.13.4.4 Issue 4: Other Public Services

The SDCL serves the entire unincorporated County and portions of surrounding incorporated cities. Cumulative projects that involve residential development would increase the population of library users, and result in the need to construct additional or renovate existing library facilities, which would result in a significant environmental impact. Cumulative projects that would contribute to additional library use include residential development proposed under the general plans of surrounding cities and counties; private projects not included in the General Plan Update land use map, including large residential development proposed under General Plan amendments, Tentative Parcel Maps, Major Use Permits, and rezones; and the FCI remapping project, if areas previously identified as FCI were remapped to residential land uses. The increase in demand for library services from implementation of cumulative projects would result in the need to construct additional or expand existing library facilities, which would create an adverse impact on the environment. While the majority of cumulative projects would undergo environmental review, and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for library facilities, which would have the potential to result in a significant cumulative impact. Therefore, cumulative projects would result in a significant cumulative impact associated with the construction of library facilities.

As discussed above, the development of future land uses as designated in the proposed General Plan Update would increase demand for library facilities requiring the provision of new or physically altered library facilities, which would have the potential to result in adverse

environmental impacts. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with library facilities.

## 2.13.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would result in a potentially significant impact due to adverse physical impacts associated with the provision of new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, and other public facilities. Additionally, the proposed project would have a potentially significant cumulative impact to fire protection, police protection, schools, and other public facilities.

## 2.13.6 Mitigation

### *2.13.6.1 Issue 1: Fire Protection Services*

The following General Plan Update policies and mitigation measures would reduce the proposed project's direct and cumulative impacts related to the construction or expansion of fire protection facilities to a level below significant.

**Proposed General Plan Update Policies**

**Policy LU-1.4: Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding;
- Potential Village development would be accommodated by the General Plan road network;
- Public facilities and services can support the expansion without a reduction of services to other County residents; and
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area.

**Policy LU-6.4: Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [See applicable community plan for possible relevant policies.]

**Policy LU-6.11: Protection from Wildfires and Unmitigable Hazards.** Assign land uses and densities in a manner that minimizes development in extreme, very high and high hazard fire areas or other unmitigable hazardous areas.

**Policy LU-12.3**: **Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Policy S-3.4: Service Availability.** Plan for development where fire and emergency services are available or planned.

**Policy S-5.1: Regional Coordination Support.** Advocate and support regional coordination among fire protection and emergency service providers.

**Policy S-5.2: Fire Service Provider Agreements.** Encourage agreements between fire service providers to improve fire protection and to maximize service levels in a fair, efficient, and cost effective manner.

**Policy S-6.1: Water Supply.** Ensure that water supply systems for development are adequate to combat structural and wildland fires.

**Policy S-6.2: Fire Protection for Multi-Story Development.** Coordinate with fire services providers to improve fire protection services for multi-story construction.

**Policy S-6.3: Funding Fire Protection Services.** Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.

**Policy S-6.4: Fire Protection Services for Development.** Require that development demonstrate that fire services can be provided that meet the minimum travel times identified in Table S-1 (Travel Time Standards).

**Policy S-6.5**: **Concurrency of Fire Protection Services.** Ensure that fire protection staffing, facilities and equipment required to serve development are operating prior to, or in conjunction with, the development. Allow incremental growth to occur until a new facility can be supported by development.

## Mitigation Measures

Mitigation measures identified in Chapters 2.1 through 2.17 of this EIR would also mitigate direct and cumulative impacts related to the construction or expansion of fire protection facilities and are incorporated here by reference. Mitigation measures listed in these sections require that the development of new or expanded facilities be evaluated pursuant to the environmental resource(s) potentially affected. In addition, the following mitigation measures would also contribute to reducing impacts related to the construction or expansion of fire protection facilities to below a level of significance.

**Pub-1.1** Participate in interjurisdictional reviews to gather information on and review and provide comments on plans for new or expanded governmental facilities in the region.

**Pub-1.2** Plan and site governmental facilities that are context-specific according to their location in village, semi-rural, or rural lands.

**Pub-1.3** Revise Board Policy I-63 to minimize leapfrog development and to establish specific criteria for GPAs proposing expansion of areas designated Village regional category. This is intended to limit unexpected demands for new or expanded public services and the associated governmental facilities.

**Pub-1.4** Review General Plan Amendments for consistency with the goals and policies of the General Plan such that future development in hazardous wildfire areas will be limited to low-density land uses that do not necessitate extensive new fire protection facilities.

**Pub-1.5** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available fire protection districts. These commitments shall also demonstrate that the distance between the projects and the fire service facilities do not result in unacceptable travel times.

**Pub-1.6** Maintain and use the County GIS and the County Guidelines for Determining Significant impacts in order to identify fire prone areas during the review of development projects. Once identified, ensure that development proposals meet requirements set by the FAHJ and that new/additional fire protection facilities are not required; or, if such facilities are required, that potential environmental impacts resulting from construction are evaluated along with the development project under review.

**Pub-1.7** Implement the Building and Fire code to ensure there are adequate fire protections in place associated with the construction of structures and their defensibility, accessibility and egress, adequate water supply, coverage by the local fire district, and other critical issues.

**Pub-1.8** Require CEQA reviews on new public facilities (fire, sheriff, libraries, etc.) or significant expansions and mitigation of environmental impact to the extent feasible.

**Pub-1.9** Implement procedures to ensure new development projects fund their fair share toward fire services facilities including the development of a long-term financing mechanism, such as an impact fee program or community facilities development, as appropriate. Large development projects are required to provide their fair share contribution to fire services either by providing additional funds and/or development of infrastructure.

### *2.13.6.2 Issue 2: Police Protection Services*

The following General Plan Update policies and mitigation measures would reduce significant direct and cumulative impacts related to the construction or expansion of police protection facilities to a level below significant.

**Proposed General Plan Update Policies**

**Policy LU-1.4: Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding;
- Potential Village development would be accommodated by the General Plan road network;
- Public facilities and services can support the expansion without a reduction of services to other County residents; and
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area.

**Policy LU-12.3: Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Mitigation Measures**

Mitigation measures identified in Sections 2.1 through 2.17 of this EIR would also mitigate direct and cumulative impacts related to the construction or expansion of police protection facilities and are incorporated here by reference. Mitigation measures listed in these sections require that the development of new facilities or expansion of existing facilities be evaluated pursuant to the environmental resource(s) potentially affected. In addition, mitigation measures Pub-1.1, Pub-1.2, and Pub-1.3 as described above are applicable to the issue of police protection services and are incorporated here by reference. Implementation of these measures would reduce potential impacts to below a level of significance.

### *2.13.6.3 Issue 3: School Services*

The following General Plan Update policies and mitigation measures would reduce the proposed project's direct and cumulative impacts related to new or expanded school facilities, although not to below a level of significance. The County does not have the authority to plan, design, approve or construct school facilities; that is the responsibility of individual school

districts that serve as their own lead agency under CEQA. However, the County may have permit or land use authority if it is a responsible agency. Due to the County's limited authority over the construction or expansion of school facilities, the County would not be able to ensure that the construction of new facilities would have a less than significant impact on the environment. Therefore, even with the implementation of the following policies and mitigation measures, impacts would be significant and unavoidable.

**Proposed General Plan Update Policies**

Implementation of the following General Plan Update policies would reduce impacts to school facilities, although not to below a level of significance.

**Policy LU-1.4: Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding;
- Potential Village development would be accommodated by the General Plan road network;
- Public facilities and services can support the expansion without a reduction of services to other County residents; and
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area.

**Policy LU-9.7: Town Center Planning and Design.** Plan and guide the development of Town Centers and transportation nodes as the major focal point and activity node for Village areas. Utilize design guidelines to be compatible with the unique character of a community. Roadways, streetscapes, building facades, landscaping, and signage within the town center should be pedestrian oriented. Wherever possible, locate public facilities, such as schools, libraries, community centers, and parks in Town Centers and Villages.

**Policy LU-12.3: Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Policy LU-17.1: Planning for Schools.** Encourage school districts to consider the population distribution as shown on the Land Use Map when planning for new school facilities.

**Policy LU-17.2: Compatibility of Schools with Adjoining Uses.** Encourage school districts to minimize conflicts between schools and adjacent development through appropriate siting and adequate mitigation, addressing such issues as student drop-off/pick up locations, parking access, and security.

**Policy LU-17.3: Priority School Locations.** Encourage school districts to locate schools within Village or Rural Village areas wherever possible and site and design them in a manner that provides the maximum opportunity for students to walk or bicycle to school.

**Policy LU-17.4: Avoidance of Hazards.** Assist school districts with locating school facilities away from fault zones, flood or dam inundation zones, and hazardous materials storage areas in conformance with State statutes.

**Policy LU-18.2**: **Co-Location of Civic Uses.** Encourage the co-location of civic uses such as County library facilities, community centers, parks, and schools. To encourage access by all segments of the population, civic uses should be accessible by transit whenever possible.

**Mitigation Measures**

Mitigation measures Pub-1.1, Pub-1.2, and Pub-1.3 as described above are applicable to the issue of school services and are incorporated here by reference. In addition, the following implementation programs would further reduce impacts associated with new or expanded school facilities, although not to below a level of significance.

**Pub-3.1** Coordinate with school districts to encourage siting new facilities in accordance with the County's General Plan and encourage implementing feasible mitigation measures to mitigate environmental impacts.

**Pub-3.2** Implement, and revise as necessary, Board Policy I-84 requiring that discretionary project applications include commitments from available school districts.

### *2.13.6.4 Issue 4: Other Public Services*

The following General Plan Update policies and mitigation measures would reduce adverse environmental impacts related to the construction or expansion of library facilities to a level below significant.

**Proposed General Plan Update Policies**

**Policy LU-1.4: Village Expansion.** Permit new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the following criteria are met:

- Potential Village development would be compatible with environmental conditions and constraints, such as topography and flooding;
- Potential Village development would be accommodated by the General Plan road network;
- Public facilities and services can support the expansion without a reduction of services to other County residents; and
- The expansion is consistent with community character, the scale, and the orderly and contiguous growth of a Village area.

**Policy LU-9.4**: **Infrastructure Serving Villages and Community Cores.** Prioritize infrastructure improvements and the provision of public facilities for Villages and community cores for the intensity of development allowed by the Land Use Map.

**Policy LU-9.7: Town Center Planning and Design.** Plan and guide the development of Town Centers and transportation nodes as the major focal point and activity node for Village areas. Utilize design guidelines to be compatible with the unique character of a community. Roadways, streetscapes, building facades, landscaping, and signage within the town center should be pedestrian oriented. Wherever possible, locate public facilities, such as schools, libraries, community centers, and parks in Town Centers and Villages.

**Policy LU-12.3: Infrastructure and Services Compatibility.** Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

**Policy LU-12.4: Planning for Compatibility.** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts.

**Policy LU-18.1: Compatibility of Civic Uses with Community Character.** Locate and design Civic uses and services to assure compatibility with the character of the community and adjoining uses, which pose limited adverse effects. Such uses may include libraries, meeting centers, and small swap meets, farmers markets, or other community gatherings.

**Policy LU-18.2: Co-Location of Civic Uses.** Encourage the co-location of civic uses such as County library facilities, community centers, parks, and schools. To encourage access by all segments of the population, civic uses should be accessible by transit whenever possible.

**Mitigation Measures**

Mitigation measures identified in Sections 2.1 through 2.17 of this EIR would also mitigate direct and cumulative impacts related to the construction or expansion of library facilities and are incorporated here by reference. Mitigation measures listed in these sections require that the development of new facilities or expansion of existing facilities be evaluated pursuant to the environmental resource(s) potentially affected. In addition, mitigation measures Pub-1.1, Pub-1.2, and Pub-1.3 as described above are applicable to the issue of library services and are incorporated here by reference. Implementation of these measures would reduce potential impacts to below a level of significance.

## 2.13.7 Conclusion

The following discussion provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### 2.13.7.1 Issue 1: Fire Protection Services

Implementation of the proposed General Plan Update would have the potential to result in a substantial adverse physical impact associated with the provision of new or physically altered fire protection facilities. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures listed above and in Sections 2.1 through 2.17 of this EIR would reduce potentially significant direct and cumulative impacts to below a level of significance. Therefore, the proposed project would not contribute to a significant cumulative impact associated with fire protection services.

### 2.13.7.2 Issue 2: Police Protection Services

Implementation of the proposed General Plan Update would have the potential to result in the need for new staffing and/or expanded police facilities in order to maintain acceptable response times for police protection services. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies and mitigation measures listed above and in Sections 2.1 through 2.17 of this EIR would reduce potentially significant direct and cumulative impacts to a level of less than significant. Therefore, the proposed project would not contribute to a significant cumulative impact associated with police protection services.

### 2.13.7.3 Issue 3: School Services

Implementation of the proposed General Plan Update would include residential land use designations that would have the potential to result in the need to construct or expand school facilities that would result in a significant environmental impact. The proposed General Plan Update policies and mitigation measures would reduce impacts related to school facilities. However, due to the County's limited authority over the construction and expansion of school facilities, impacts would remain potentially significant and unavoidable. Additionally, the proposed project would result in cumulatively considerable and unavoidable contribution to a significant cumulative impact associated with the provision and construction of school facilities.

### 2.13.7.4 Issue 4: Other Public Services

Implementation of the proposed General Plan Update would include land use designations that would accommodate an increase in population that would result in new library users and require the construction of new or expanded library facilities. Therefore, the proposed project would result in a potentially significant impact. However, proposed General Plan Update policies and mitigation measures listed above and in Sections 2.1 through 2.17 of this EIR would reduce potentially significant direct and cumulative impacts to a less than significant level. Therefore, the proposed project would not contribute to a significant cumulative impact associated with library use and other public services.

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## Table 2.13-1. Fire Protection Agencies Serving Unincorporated San Diego County

| Fire Protection Agencies | Provider | Dependent or Independent |
|---|---|---|
| 1. Alpine FPD | District | Independent |
| 2. Bonita/Sunnyside FPD | District | Independent |
| 3. Borrego Springs FPD | District | Independent |
| 4. Deer Springs FPD | CAL FIRE | Independent |
| 5. Julian-Cuyamaca FPD | District | Independent |
| 6. Lakeside FPD | District | Independent |
| 7. North County FPD | District | Independent |
| 8. Pine Valley FPD | District | Independent |
| 9. Rancho Santa Fe FPD | District | Independent |
| 10. San Diego Rural FPD | District | Independent |
| 11. San Miguel Con. FPD | District | Independent |
| 12. Valley Center FPD | CAL FIRE | Independent |
| 13. Vista FPD | City of Vista | Independent |
| 14. Mootamai MWD | CAL FIRE | Independent |
| 15. Pauma MWD | CAL FIRE | Independent |
| 16. Ramona MWD | CAL FIRE | Independent |
| 17. Rincon del Diablo MWD | CAL FIRE | Independent |
| 18. Yuima MWD | CAL FIRE | Independent |
| 19. San Marcos FPD | District | Dependent |
| 20. CSA 107 (Elfin Forest) | County of San Diego | Dependent |
| 21. CSA 109 (Mount Laguna) | County of San Diego | Dependent |
| 22. CSA 110 (Palomar Mtn) | County of San Diego | Dependent |
| 23. CSA 111 (Boulevard) | County of San Diego | Dependent |
| 24. CSA 112 (Campo) | County of San Diego | Dependent |
| 25. CSA 113 (San Pasqual) | County of San Diego | Dependent |
| 26. CSA 115 (Pepper Drive) | City of Santee | Dependent |
| 27. CSA 135 (8 volunteer & 3 CAL FIRE stations) | County of San Diego | Dependent |
| 28. CAL FIRE | State | Independent |

Source: SD LAFCO Fire Protection and Emergency Medical Services Review 2005

## Table 2.13-2. Fire Protection Agencies Existing and Future (Proposed Project Build-out) Housing and Population Forecast

| Fire Protection Agencies | Existing Housing Units (2004) | Existing Population (2004) | Proposed Housing Units | Proposed Population | Housing Growth (percent) | Population Growth (percent) |
|---|---|---|---|---|---|---|
| 1. Alpine FPD | 2,505 | 6,891 | 5,753 | 15,826 | 130 | 130 |
| 2. Bonita/Sunnyside FPD | 4,179 | 12,829 | 4,955 | 15,211 | 19 | 19 |
| 3. Borrego Springs FPD | 2,392 | 3,691 | 11,329 | 17,483 | 374 | 374 |
| 4. Deer Springs FPD | 4,783 | 12,825 | 6,897 | 18,501 | 44 | 44 |
| 5. Julian-Cuyamaca FPD | 1,578 | 3,200 | 2,376 | 4,787 | 51 | 50 |
| 6. Lakeside FPD | 20,666 | 59,168 | 24,033 | 68,790 | 16 | 16 |
| 7. North County FPD | 16,850 | 48,397 | 25,815 | 73,744 | 53 | 52 |
| 8. Pine Valley FPD | 815 | 1,519 | 1,143 | 2,131 | 40 | 40 |
| 9. Rancho Santa Fe FPD | 7,939 | 20,589 | 8,765 | 22,729 | 10 | 10 |
| 10. San Diego Rural FPD | 9,965 | 27,996 | 14,707 | 41,360 | 48 | 48 |
| 11. San Marcos Fire Protection District | 3,724 | 11,206 | 6,374 | 19,171 | 71 | 71 |
| 12. San Miguel Con. FPD | 36,403 | 109,691 | 52,585 | 156,654 | 44 | 43 |
| 13. Valley Center FPD | 4,742 | 13,675 | 11,412 | 32,910 | 141 | 141 |
| 14. Vista FPD | 5,743 | 16,817 | 10,745 | 31,687 | 87 | 88 |
| 15. Mootamai MWD | 30 | 90 | 47 | 141 | 56 | 56 |
| 16. Pauma MWD | 175 | 523 | 566 | 1,689 | 223 | 223 |
| 17. Ramona MWD | 16,502 | 50,656 | 22,446 | 68,897 | 36 | 36 |
| 18. Rincon del Diablo MWD | 9,887 | 29,691 | 18,915 | 56,884 | 91 | 92 |
| 19. Yuima MWD | 907 | 2,710 | 2,351 | 7,027 | 159 | 159 |
| 20. CSA 107 (Elfin Forest) | 753 | 2,081 | 2,080 | 5,741 | 176 | 176 |
| 21. CSA 109 (Mount Laguna) | 587 | 1,095 | 679 | 1,270 | 16 | 17 |
| 22. CSA 110 (Palomar Mtn) | 229 | 385 | 750 | 1,232 | 228 | 220 |
| 23. CSA 111 (Boulevard) | 1,291 | 2,635 | 2,387 | 4,872 | 85 | 85 |
| 24. CSA 112 (Campo) | 1,260 | 3,117 | 2,359 | 5,836 | 87 | 87 |
| 25. CSA 113 (San Pasqual) | 557 | 1,705 | 1,090 | 3,327 | 96 | 95 |
| 26. CSA 115 (Pepper Drive) | 3,231 | 9253 | 3,279 | 9,391 | 1 | 1 |
| 27. CSA 135 (County Fire Authority) | 6,179 | 16,336 | 11,038 | 28,039 | 79 | 72 |

Note: CAL FIRE (State agency) not included in table
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.13-3. Emergency Response Fire Travel Times

| Land Use Category | Maximum Travel Time | Land Use Category Defined |
|---|---|---|
| Town | 5 minutes | Single-family residential lots of less than two acres, or more intensive uses such as multi-family residential. Includes all industrial development and all commercial development except neighborhood commercial |
| Estate | 10 minutes | Single-family residential lots from two to four acres in size. Includes neighborhood commercial development. |
| Rural | 20 minutes | Large lot single-family residential and agricultural development. Lot sizes of greater than four acres. |

Source: DPLU 2008e

## Table 2.13-4. Fire Response Time by Road Miles Covered

| Fire Protection Agency | Percent of Miles Covered in: | | | Approximate Square Miles within Agency | Approximate Square Miles Covered in 10 minutes | Number of Stations per Agency |
|---|---|---|---|---|---|---|
| | 5 minutes | 10 minutes | 20 minutes | | | |
| 1. Alpine FPD | 55 | 98 | 100 | 28 | 27 | 1 |
| 2. Bonita/Sunnyside FPD | 95 | 100 | 100 | 6 | 6 | 1 |
| 3. Borrego Springs FPD | 50 | 75 | 85 | 305 | 229 | 1 |
| 4. Deer Springs FPD | 50 | 95 | 100 | 47 | 45 | 2 |
| 5. Julian-Cuyamaca FPD | 60 | 80 | 90 | 86 | 69 | 2 |
| 6. Lakeside FPD | 88 | 95 | 100 | 55 | 52 | 3 |
| 7. North County FPD | 70 | 95 | 100 | 92 | 87 | 5 |
| 8. Pine Valley FPD | 60 | 75 | 85 | 75 | 56 | 1 |
| 9. Rancho Santa Fe FPD | 65 | 92 | 100 | 45 | 41 | 3 |
| 10. San Diego Rural FPD | 55 | 65 | 75 | 690 | 449 | 14 |
| 11. San Miguel Con. FPD | 95 | 99 | 100 | 45 | 45 | 7 |
| 12. Valley Center FPD | 35 | 80 | 90 | 85 | 68 | 2 |
| 13. Vista FPD | 75 | 100 | 100 | 19 | 19 | 4 |
| 14. Mootamai MWD | 0 | 65 | 100 | 1 | 1 | 0 |
| 15. Pauma MWD | 10 | 30 | 95 | 7 | 2 | 0 |
| 16. Ramona MWD | 82 | 90 | 100 | 75 | 68 | 2 |
| 17. Rincon del Diablo MWD | 70 | 100 | 100 | 19 | 19 | 5 |
| 18. Yuima MWD | 10 | 30 | 100 | 21 | 6 | 0 |
| 19. San Marcos FPD | 80 | 98 | 100 | 9 | 9 | 3 |
| 20. CSA 107 (Elfin Forest) | 45 | 65 | 90 | 10 | 6 | 1 |
| 21. CSA 109 (Mount Laguna) | 45 | 60 | 70 | 33 | 20 | 1 |
| 22. CSA 110 (Palomar Mountain) | 25 | 35 | 85 | 36 | 12 | 1 |
| 23. CSA 111 (Boulevard) | 40 | 65 | 85 | 78 | 51 | 1 |
| 24. CSA 112 (Campo) | 50 | 65 | 90 | 50 | 33 | 1 |
| 25. CSA 113 (San Pasqual) | 15 | 30 | 98 | 17 | 5 | 1 |
| 26. CSA 115 (Pepper Drive) | 100 | 100 | 100 | 2 | 28 | 0 |
| 27. CSA 135 (County Fire Authority) | 29 | 56 | 69 | 1,318 | 71 | 9 |

Sources: SD LAFCO Fire Protection and Emergency Medical Services Review 2005; and DPLU GIS 2008

## Table 2.13-5. SDSD Law Enforcement Command Areas (2009)

| Command Stations and Substations | Communities Served in the County | |
|---|---|---|
| | **Incorporated** | **Unincorporated** |
| Vista Station | Vista | North County Metro |
| Fallbrook Substation | | Fallbrook, Northern Pendleton/De Luz, Bonsall |
| San Marcos Station | San Marcos | North County Metro |
| Valley Center Substation | | Valley Center, Pala/Pauma Valley, Palomar |
| Poway Station | Poway | |
| 4S Ranch Substation | | Eastern San Dieguito (4S Ranch) |
| Ramona Substation | | Ramona, Northern Central Mountain |
| Encinitas Station | Del Mar, Encinitas, Solana Beach | Western San Dieguito (Rancho Santa Fe, Fairbanks Ranch, Rancho Cielo), San Onofre-Camp Pendleton coastal area |
| Lemon Grove Station | Lemon Grove | Spring Valley, Rancho San Diego, Jamul, Valle de Oro, unincorporated La Mesa |
| Santee Station | Santee | Lakeside, Ramona, unincorporated El Cajon |
| Imperial Beach Station | Imperial Beach | East Otay Mesa, Bonita, Sweetwater, Lincoln Acres |
| Alpine Station | | Alpine, Crest, Dehesa, Harbison Canyon, Eastern Lakeside (Blossom Valley, Flinn Springs) |
| **Rural Enforcement** | | |
| Julian Substation | | Julian, Santa Ysabel, Cuyamaca |
| Ranchita Substation (Borrego Springs Office) | | North Mountain, Warner Springs, Ranchita, Shelter Valley, Borrego Springs |
| Pine Valley Substation (Boulevard/Jacumba Office) | | Pine Valley, Guatay, Mount Laguna, Descanso Boulevard, Live Oak Springs, Boulevard, Jacumba |
| Campo Substation | | Campo, Tecate, Cameron Corners, Lake Morena Village, Potrero |

Note: Storefronts are not included in this table.
Source: DPLU 2007e

## Table 2.13-6. SDSD Beat Districts: Existing and Future (Proposed Project Build-out) Housing and Population Forecast

| Sheriff Districts | Existing Housing Units (2004) | Existing Population (2004) | Proposed Housing Units | Proposed Population | Housing Growth (percent) | Population Growth (percent) |
|---|---|---|---|---|---|---|
| 1. 4S Ranch | 2,851 | 7,379 | 2,969 | 7,682 | 4 | 4 |
| 2. Alpine | 3,527 | 9,704 | 6,950 | 19,128 | 97 | 97 |
| 3. Bonita | 4,813 | 14,767 | 5,755 | 17,650 | 20 | 20 |
| 4. Bonsall | 1,789 | 4,909 | 3,129 | 8,560 | 75 | 74 |
| 5. Borrego Springs | 2,906 | 4,503 | 12,369 | 19,125 | 326 | 325 |
| 6. Boulevard | 460 | 940 | 887 | 1,814 | 93 | 93 |
| 7. Camp Pendleton | 6,097 | 19,360 | 6,097 | 19,361 | 0 | 0 |
| 8. Campo | 973 | 2,422 | 1,877 | 4,663 | 93 | 93 |
| 9. Descanso | 534 | 1,279 | 872 | 2,061 | 63 | 61 |
| 10. Dulzura | 692 | 2,075 | 1,134 | 3,388 | 64 | 63 |
| 11. El Cajon Unincorporated | 17,932 | 51,497 | 20,812 | 59,766 | 16 | 16 |
| 12. Encinitas Unincorporated | 335 | 1,028 | 468 | 1,370 | 40 | 33 |
| 13. Escondido Unincorporated | 9,293 | 26,438 | 16,767 | 48,207 | 80 | 82 |
| 14. Fallbrook | 15,793 | 45,586 | 23,041 | 66,523 | 46 | 46 |
| 15. Greenwood Cemetery | 1 | 4 | 2 | 7 | 100 | 75 |
| 16. Jacumba | 305 | 688 | 621 | 1,393 | 104 | 102 |
| 17. Jamul | 2,489 | 7,435 | 3,996 | 11,973 | 61 | 61 |
| 18. Julian | 1,693 | 3,465 | 2,752 | 5,617 | 63 | 62 |
| 19. La Mesa Unincorporated | 5,852 | 16,770 | 6,061 | 17,369 | 4 | 4 |
| 20. Lakeside | 18,328 | 52,558 | 20,759 | 59,528 | 13 | 13 |
| 21. Lincoln Acres | 583 | 1,952 | 717 | 2,401 | 23 | 23 |
| 22. Otay | 37 | 108 | 52 | 151 | 41 | 40 |
| 23. Pala | 556 | 1,633 | 955 | 2,817 | 72 | 73 |
| 24. Palomar Mountain | 253 | 408 | 544 | 879 | 115 | 115 |
| 25. Pauma Valley | 1,390 | 4,094 | 3,407 | 10,105 | 145 | 147 |
| 26. Pine Valley | 2,284 | 4,955 | 2,914 | 6,207 | 28 | 25 |
| 27. Poway Unincorporated | 205 | 629 | 339 | 1,037 | 65 | 65 |
| 28. Ramona | 11,528 | 35,383 | 17,561 | 53,854 | 52 | 52 |
| 29. Ranchita | 291 | 572 | 824 | 1,559 | 183 | 173 |
| 30. Rancho Santa Fe | 4,787 | 12,388 | 5,377 | 13,914 | 12 | 12 |
| 31. S.D. County | 1,619 | 4,438 | 1,651 | 4,521 | 2 | 2 |
| 32. San Marcos Unincorporated | 2,639 | 7,925 | 3,545 | 10,607 | 34 | 34 |
| 33. Santa Ysabel | 264 | 669 | 831 | 1,864 | 215 | 179 |
| 34. Spring Valley | 23,584 | 73,077 | 25,324 | 78,505 | 7 | 7 |
| 35. Tecate | 276 | 793 | 906 | 2,601 | 228 | 228 |
| 36. Valley Center | 5,663 | 16,344 | 12,843 | 37,110 | 127 | 127 |
| 37. Vista Unincorporated | 5,858 | 17,153 | 10,943 | 32,262 | 87 | 88 |
| 38. Warner Springs | 829 | 1,669 | 1,818 | 3,651 | 119 | 119 |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.13-7. 2008 SDSD Average Adjusted Response Times by Area [(1)]

| Stations serving the Unincorporated County | Average Response Time (in minutes) | |
|---|---|---|
| | Priority Calls | Non-Priority Calls |
| Vista Station (unincorporated service area only) | 15 | 35 |
| Fallbrook Substation | 13 | 28 |
| San Marcos Station (unincorporated service area only) | 20 | 41 |
| Valley Center Substation | 19 | 33 |
| Poway Station (unincorporated service area only) | 17 | 29 |
| 4S Ranch Substation | 8 | 15 |
| Ramona Substation | 10 | 23 |
| Encinitas Station (unincorporated service area only) | 17 | 26 |
| Lemon Grove Station (unincorporated service area only) | 12 | 34 |
| Santee Station (unincorporated service area only) | 13 | 32 |
| Alpine Station | 15 | 30 |
| Imperial Beach (unincorporated service area only) | 15 | 30 |
| Julian Substation | 16 | 25 |
| Ranchita Substation | 25 | 31 |
| Pine Valley Substation | 21 | 28 |
| Campo Substation | 23 | 38 |
| **Total** | 16 | 30 |

(1) Response times for priority calls greater than 3 hours and non-priority response times greater than 18 hours are considered errors and were not used in the computation of average response times.

Note: Data has been rounded to nearest whole number.

Source: SDSD 2009

## Table 2.13-8. School Districts Serving San Diego County (2004)

| School District | Incorporated Jurisdictions Served | CPA or Subregion Served | Total Unincorporated Area Served (acres) | Total Acreage Served |
|---|---|---|---|---|
| **School Districts Serving Only Unincorporated Areas of San Diego County** | | | | |
| Alpine Union Elementary | None | Alpine, Central Mountain, Crest/Dehesa, Jamul/Dulzura | 61,238 | 61,238 |
| Borrego Springs Unified | None | Desert | 3,220,704 | 3,220,704 |
| Dehesa Elementary | None | Alpine, Crest/Dehesa, Valle de Oro | 13,113 | 13,113 |
| Jamul/Dulzura Union Elementary | None | Alpine, Jamul/Dulzura, Mountain Empire, Otay | 104,446 | 104,446 |
| Julian Union Elementary | None | Central Mountain., Desert, Julian, Mountain Empire, North Mountain, Pala/Pauma Valley, Ramona | 395,613 | 395,613 |
| Julian Union High | None | Central Mountain, Desert, Julian, Mountain Empire, North Mountain, Pala/Pauma Valley, Ramona | 401,893 | 401,893 |
| Spencer Valley Elementary | None | Julian, North Mountain | 6,280 | 6,280 |
| Vallecitos Elementary | None | Fallbrook, Pala/Pauma Valley, Rainbow | 12,949 | 12,949 |
| Warner Unified | None | Desert, Julian, North Mountain | 277,248 | 277,248 |
| **School Districts Serving Both Incorporated and Unincorporated Areas of San Diego County** | | | | |
| Bonsall Union Elementary | Oceanside | Bonsall, Fallbrook, Pala/Pauma Valley, Pendleton/De Luz, Rainbow, Valley Center | 40,769 | 44,774 |
| Cajon Valley Union Elementary | El Cajon | Alpine, Crest/Dehesa, Jamul/Dulzura, Lakeside, Spring Valley, Sweetwater, Valle de Oro | 35,257 | 42,057 |
| Chula Vista City Elementary | Chula Vista, National City, San Diego | Jamul/Dulzura, Otay, Spring Valley, Sweetwater | 30,779 | 66,853 |
| Encinitas Union Elementary | Carlsbad, Encinitas, San Marcos | San Dieguito | 905 | 15,161 |
| Escondido Union Elementary | Escondido, San Diego, San Marcos | Bonsall, North County Metro, San Dieguito, Valley Center | 26,657 | 49,691 |
| Escondido Union High | Escondido, Poway, San Diego, San Marcos | Bonsall, North County Metro, North Mountain, Pala/Pauma Valley, Ramona, San Dieguito, Valley Center | 229,784 | 262,425 |
| Fallbrook Union Elementary | Oceanside | Bonsall, Fallbrook, Pendleton/De Luz, Rainbow | 164,360 | 164,361 |
| Fallbrook Union High | Oceanside | Bonsall, Fallbrook, Pala/Pauma Valley, Pendleton/De Luz, Rainbow, Valley Center | 218,077 | 222,084 |

**Table 2.13-8 (Continued)**

| School District | Incorporated Jurisdictions Served | Community Planning Areas Served | Total Unincorporated Area Served (acres) | Total Acreage Served |
|---|---|---|---|---|
| Grossmont Union High | El Cajon, La Mesa, Lemon Grove, San Diego, Santee | Alpine, Central Mountain, Crest/Dehesa, Jamul/Dulzura, Lakeside, Mountain Empire, Otay, Ramona, Spring Valley, Sweetwater, Valle de Oro | 269,225 | 303,492 |
| La Mesa – Spring Valley Elementary | El Cajon, La Mesa, San Diego | Spring Valley, Sweetwater, Valle de Oro | 9,841 | 16,997 |
| Lakeside Union Elementary | Santee | Alpine, , Central Mountain, Lakeside, Ramona | 44,912 | 45,025 |
| Lemon Grove Elementary | La Mesa, Lemon Grove, San Diego | Spring Valley | 16 | 3,453 |
| Mountain Empire Unified | San Diego | Alpine, Central Mountain, Desert, Jamul/Dulzura, Mountain Empire | 423,952 | 423,965 |
| National Elementary | Chula Vista, National City, San Diego | County Islands | 289 | 6,153 |
| Oceanside Unified | Carlsbad, Oceanside | Pendleton/De Luz | 25,509 | 42,341 |
| Poway Unified | Poway, San Diego, Santee | Lakeside, Ramona, San Dieguito | 9,822 | 64,067 |
| Ramona Unified | Poway | Alpine, Central Mountain, Lakeside, North Mountain, Ramona | 109,730 | 110,655 |
| Rancho Santa Fe Elementary | Encinitas, San Marcos | San Dieguito | 11,900 | 12,018 |
| San Diego Unified | Coronado, Del Mar, La Mesa, National City, Poway, San Diego | County Islands, Spring Valley, Sweetwater | 404 | 139,544 |
| San Dieguito Union High | Carlsbad, Del Mar, Encinitas, San Diego, San Marcos, Solana Beach | San Dieguito | 19,003 | 52,741 |
| San Marcos Unified | Carlsbad, Escondido, San Marcos, Vista | North County Metro, San Dieguito | 7,187 | 26,853 |
| San Pasqual Union Elementary | Escondido, Poway, San Diego | North County Metro, Ramona | 10,699 | 19,459 |
| San Ysidro Elementary | Chula Vista, San Diego | Otay | 7,580 | 18,464 |
| Santee Elementary | El Cajon, San Diego Santee | Lakeside | 376 | 17,164 |
| Solana Beach Elementary | Del Mar, Encinitas, San Diego, Solana Beach | San Dieguito | 6,197 | 13,452 |

**Table 2.13-8 (Continued)**

| School District | Incorporated Jurisdictions Served | Community Planning Areas Served | Total Unincorporated Area Served (acres) | Total Acreage Served |
|---|---|---|---|---|
| Sweetwater Union High | Chula Vista, Coronado, Imperial Beach, National City, San Diego | County Islands, Jamul/Dulzura, Otay, Spring Valley, Sweetwater | 38,648 | 101,458 |
| Valley Center – Pauma Unified | Escondido, San Diego | Bonsall, North County Metro, North Mountain, Pala/Pauma Valley, Ramona, Valley Center | 91,978 | 92,823 |
| Vista Unified | Carlsbad, Oceanside, San Marcos, Vista | Bonsall, North County Metro | 8,233 | 25,045 |

Source: DPLU 2007c

## Table 2.13-9. School Enrollment for Districts Serving the Unincorporated County (2005-2006)

| District | Number of Schools | Enrollment | Avg. Pupil Teacher Ratio | Avg. Class Size |
|---|---|---|---|---|
| Alpine Union Elementary | 7 | 2,290 | 21:1 | 27 |
| Bonsall Union Elementary | 5 | 1,888 | 19:1 | 24 |
| Borrego Springs Unified | 5 | 482 | 16:1 | 17 |
| Cajon Valley Union Elementary | 29 | 16,669 | 21:1 | 28 |
| Chula Vista Elementary | 43 | 26,472 | 19:1 | 22 |
| Dehesa Elementary | 2 | 786 | 17:1 | 21 |
| Encinitas Union Elementary | 9 | 5,647 | 20:1 | 23 |
| Escondido Union Elementary | 25 | 19,654 | 20:1 | 26 |
| Escondido Union High | 6 | 9,019 | 25:1 | 30 |
| Fallbrook Union Elementary | 9 | 5,819 | 21:1 | 27 |
| Fallbrook Union High | 3 | 3,106 | 22:1 | 26 |
| Grossmont Union High School | 19 | 24,444 | 24:1 | 28 |
| Jamul/Dulzura Union Elementary | 4 | 1,412 | 20:1 | 27 |
| Julian Union Elementary | 3 | 2,001 | 18:1 | 21 |
| Julian Union High | 4 | 3,762 | 24:1 | 18 |
| La Mesa-Spring Valley | 22 | 13,657 | 21:1 | 28 |
| Lakeside Union Elementary | 11 | 4,358 | 21:1 | 22 |
| Lemon Grove Elementary | 8 | 4,147 | 22:1 | 27 |
| Mountain Empire Unified | 12 | 1,733 | 20:1 | 24 |
| National Elementary | 11 | 6,153 | 22:1 | 23 |
| Oceanside Unified | 28 | 21,367 | 21:1 | 28 |
| Poway Unified | 33 | 32,645 | 22:1 | 29 |
| Ramona City Unified | 11 | 7,031 | 24:1 | 27 |
| Rancho Santa Fe Elementary | 2 | 831 | 14:1 | 18 |
| San Diego City Unified | 211 | 132,482 | 19:1 | 28 |
| San Dieguito Union High | 10 | 12,190 | 23:1 | 29 |
| San Marcos Unified | 17 | 16,169 | 24:1 | 29 |
| San Pasqual Union Elementary | 1 | 576 | 18:1 | 22 |
| San Ysidro Elementary | 7 | 5,087 | 21:1 | 27 |
| Santee Elementary | 11 | 6,503 | 20:1 | 25 |
| Solana Beach Elementary | 6 | 2,682 | 19:1 | 21 |
| Spencer Valley Elementary | 2 | 689 | 29:1 | 13 |
| Sweetwater Union High | 28 | 41,865 | 23:1 | 29 |
| Vallecitos Elementary | 3 | 446 | 20:1 | 22 |
| Valley Center-Pauma Unified | 11 | 4,672 | 21:1 | 27 |
| Vista Unified | 30 | 26,207 | 22:1 | 26 |
| Warner Unified | 3 | 256 | 15:1 | 16 |
| **Totals** | **639** | **444,487** | **21:1** | **24** |

Note: Data has been rounded to nearest whole number.
Source: SDOE 2007

## Table 2.13-10. San Diego School Districts: Existing and Future (Proposed Project Build-out) Housing and Population Forecast

| School Districts | Existing Housing Units (2004) | Existing Population (2004) | Proposed Housing Units | Proposed Population | Housing Growth (percent) | Population Growth (percent) |
|---|---|---|---|---|---|---|
| 1. Alpine Union Elementary | 6,447 | 17,804 | 10,142 | 27,986 | 57 | 57 |
| 2. Bonsall Union Elementary | 4,660 | 13,121 | 7,561 | 21,199 | 62 | 62 |
| 3. Borrego Springs Unified | 2,644 | 4,089 | 11,778 | 18,191 | 345 | 345 |
| 4. Cajon Valley Union Elementary | 25,853 | 74,538 | 29,220 | 84,202 | 13 | 13 |
| 5. Chula Vista Elementary | 4,636 | 14,236 | 5,502 | 16,893 | 19 | 19 |
| 6. Dehesa Elementary | 789 | 2,292 | 1,076 | 3,123 | 36 | 36 |
| 7. Encinitas Union Elementary | 76 | 196 | 163 | 422 | 114 | 115 |
| 8. Escondido Union Elementary | 7,677 | 21,910 | 13,822 | 39,861 | 80 | 82 |
| 9. Escondido Union High | 7,944 | 22,721 | 14,680 | 42,465 | 85 | 87 |
| 10. Fallbrook Union Elementary | 15,786 | 46,378 | 21,327 | 62,531 | 35 | 35 |
| 11. Fallbrook Union High | 21,307 | 61,847 | 30,492 | 88,112 | 43 | 42 |
| 12. Grossmont Union High | 74,245 | 217,994 | 87,127 | 255,263 | 17 | 17 |
| 13. Jamul/Dulzura Union Elementary | 2,743 | 8,269 | 4,881 | 14,706 | 78 | 78 |
| 14. Julian Union Elementary | 1,851 | 3,624 | 3,639 | 7,097 | 97 | 96 |
| 15. Julian Union High | 2,037 | 4,009 | 3,932 | 7,700 | 93 | 92 |
| 16. La Mesa-Spring Valley Elementary | 22,615 | 69,757 | 24,396 | 75,286 | 8 | 8 |
| 17. Lakeside Union Elementary | 14,694 | 42,165 | 16,285 | 46,720 | 11 | 11 |
| 18. Lemon Grove Elementary | 38 | 119 | 38 | 119 | 0 | 0 |
| 19. Mountain Empire Unified | 4,165 | 9,214 | 7,227 | 16,372 | 74 | 78 |
| 20. National Elementary | 586 | 1,963 | 721 | 2,412 | 23 | 23 |
| 21. Oceanside Unified | 4,113 | 13,062 | 4,113 | 13,062 | 0 | 0 |
| 22. Poway Unified | 2,789 | 7,231 | 2,825 | 7,335 | 1 | 1 |
| 23. Ramona City Unified | 11,654 | 35,770 | 17,711 | 54,316 | 52 | 52 |
| 24. Rancho Santa Fe Elementary | 2,457 | 6,357 | 3,114 | 8,057 | 28 | 27 |
| 25. San Diego City Unified | 789 | 2,474 | 792 | 2,485 | <1 | <1 |
| 26. San Dieguito Union High | 5,067 | 13,112 | 6,054 | 15,666 | 19 | 19 |
| 27. San Marcos Unified | 3,796 | 11,416 | 5,408 | 16,197 | 42 | 42 |
| 28. San Pasqual Union Elementary | 267 | 812 | 859 | 2,606 | 222 | 221 |
| 29. San Ysidro Elementary | 4 | 11 | 12 | 34 | 200 | 209 |
| 30. Santee Elementary | 1,065 | 3,050 | 1,089 | 3,120 | 2 | 2 |
| 31. Solana Beach Elementary | 2,534 | 6,559 | 2,777 | 7,186 | 10 | 10 |
| 32. Spencer Valley Elementary | 187 | 384 | 293 | 603 | 57 | 57 |
| 33. Sweetwater Union High | 5,226 | 16,210 | 6,234 | 19,339 | 19 | 19 |
| 34. Vallecitos Elementary | 861 | 2,348 | 1,603 | 4,381 | 86 | 86 |
| 35. Valley Center-Pauma Unified | 7,992 | 22,723 | 17,888 | 51,130 | 124 | 125 |
| 36. Vista Unified | 4,549 | 13,291 | 9,059 | 26,742 | 99 | 101 |
| 37. Warner Unified | 1,157 | 2,323 | 2,725 | 5,386 | 136 | 132 |

Note: Data has been rounded to nearest whole number. Source: DPLU GIS 2008

## Table 2.13-11. Major Academic Institutions and Professional Schools Serving Unincorporated County Residents

| Type | Name |
|---|---|
| Private College or University | Alliant International University – San Diego Campus |
| | Baptist College |
| | Christian Heritage College |
| | Maric College |
| | National University |
| | Platt College – San Diego |
| | Point Loma Nazarene University |
| | University of San Diego |
| Public College or University | California State University San Marcos |
| | Cuyamaca Community College |
| | Grossmont Community College |
| | Mira Costa Community College |
| | Palomar Community College |
| | San Diego City College |
| | San Diego Mesa College |
| | San Diego Miramar College |
| | San Diego State University |
| | Southwestern College |
| | University of California, San Diego |
| Technical/Professional Schools | California Western School of Law |
| | Design Institute of San Diego |
| | Fashion Institute of Design and Merchandising – San Diego |
| | ITT Technical Institute |
| | New School of Architecture and Design |
| | Pacific College of Oriental Medicine |
| | The Art Institute of California – San Diego |
| | Thomas Jefferson School of Law |

Source: DPLU 2007c

## Table 2.13-12. Existing Library Branches Facility Requirements (2006)

| County Libraries | Location (Jurisdiction or CPA/Subregion) | Existing Facilities (sf) | Facility Requirement (sf) | Facility Surplus/ Deficit (sf) |
|---|---|---|---|---|
| 1. 4S Ranch | Escondido | 7,214 | 6,326 | +888 |
| 2. Alpine | Alpine | 3,018 | 7,486 | (-4,468) |
| 3. Bonita/Sunnyside | Sweetwater | 10,000 | 7,017 | +2,983 |
| 4. Borrego Springs | Desert – Borrego Springs | 3,787 | 1,724 | (-176) |
| 5. Campo/Lake Morena | Mountain Empire – Campo/ Lake Morena | 2,480 | 1,988 | +492 |
| 6. Casa de Oro | Valle de Oro | 3,889 | 11,115 | (-7,226) |
| 7. Crest | Crest/Dehesa | 1,583 | 3,961 | (-2378) |
| 8. Descanso | Central Mountain – Descanso | 2,692 | 1,609 | +583 |
| 9. Encinitas | Encinitas | 25,000 | 22,788 | +2,212 |
| 10. Fallbrook | Fallbrook | 8,100 | 23,430 | (-15,330) |
| 11. Jacumba | Mountain Empire – Jacumba | 2,400 | 1,005 | (-1,395) |
| 12. Julian | Julian | 9,700 | 2,318 | +7,382 |
| 13. Lakeside | Lakeside | 5,000 | 26,883 | (-21,883) |
| 14. Lincoln Acres | County Islands – Lincoln Acres | 854 | 1,017 | (-163) |
| 15. Pine Valley | Central Mountain – Pine Valley | 1,920 | 1142 | +778 |
| 16. Potrero | Mountain Empire – Potrero | 2,500 | 356 | +2,144 |
| 17. Ramona | Ramona | 4,880 | 18,044 | (-13,164) |
| 18. Rancho San Diego | Valle de Oro | 19,500 | 26,666 | (-7,166) |
| 19. Rancho Santa Fe | San Dieguito | 8,241 | 5,365 | +2,876 |
| 20. Spring Valley | Spring Valley | 12,630 | 17,887 | (-5,257) |
| 21. Valley Center | Valley Center | 14,068 | 6,856 | +7,212 |
| 22. East Bookmobile | N/A | N/A | N/A | N/A |
| 23. North Bookmobile | N/A | N/A | N/A | N/A |
| 24. Cardiff-by-the-Sea | Cardiff-by-the-Sea | 5,977 | 8,950 | (-2,973) |
| 25. Del Mar | Del Mar | 4,700 | 2,278 | +2,422 |
| 26. El Cajon | El Cajon | 31,166 | 51,871 | (-21,705) |
| 27. Fletcher Hills | El Cajon | 3,256 | 7,992 | (-4736) |
| 28. Imperial Beach | Imperial Beach | 5,100 | 13,890 | (-8,790) |
| 29. La Mesa Interim branch opens 2007 | La Mesa | 7,916 | 29,236 | (-21,320) |
| 30. Lemon Grove | Lemon Grove | 9,000 | 15,208 | (-6,208) |
| 31. Poway | Poway | 20,000 | 25,349 | (-5,349) |
| 32. San Marcos | San Marcos | 15,394 | 48,070 | (-32,676) |
| 33. Santee | Santee | 7,500 | 27,892 | (-20,392) |
| 34. Solana Beach | Solana Beach | 10,770 | 7,250 | +3,520 |
| 35. Vista | Vista | 30,394 | 53,199 | (-22,805) |

Note: SF= square footage
Source: DPLU 2007c

## Table 2.13-13. San Diego Library Districts: Existing and Future (Proposed Project Build-out) Housing and Population Forecast

| Libraries | Existing Housing Units (2004) | Existing Population (2004) | Proposed Housing Units | Proposed Population | Housing Growth (percent) | Population Growth (percent) |
|---|---|---|---|---|---|---|
| 1. 4S Ranch | 2.474 | 6,389 | 2.474 | 6,389 | 0 | 0 |
| 2. Alpine | 5,539 | 15,249 | 8,955 | 24,661 | 62 | 62 |
| 3. Bonita | 4,718 | 14,499 | 5,565 | 17,104 | 18 | 18 |
| 4. Borrego Springs | 2,945 | 4,567 | 10,172 | 15,755 | 245 | 245 |
| 5. Campo/Lake Morena | 1,371 | 3,394 | 2,719 | 6,757 | 98 | 99 |
| 6. Casa De Oro | 8,054 | 24,348 | 8,577 | 25,953 | 6 | 7 |
| 7. Crest | 2,549 | 7,355 | 3,585 | 10,325 | 41 | 40 |
| 8. Descanso | 1,038 | 2,415 | 1,350 | 3,172 | 30 | 31 |
| 9. East Bookmobile | 1,413 | 4,217 | 2,411 | 7,206 | 71 | 71 |
| 10. El Cajon | 2,760 | 7,928 | 3,798 | 10,903 | 38 | 38 |
| 11. Fallbrook | 16,812 | 48,356 | 23,574 | 67,725 | 40 | 40 |
| 12. Jacumba | 897 | 1,907 | 1,547 | 3,269 | 72 | 71 |
| 13. Julian | 1,891 | 3,835 | 3,495 | 7,119 | 85 | 86 |
| 14. La Mesa | 980 | 2,808 | 1,061 | 3,039 | 8 | 8 |
| 15. Lakeside | 18,999 | 52,509 | 21,311 | 59,109 | 12 | 13 |
| 16. Lemon Grove | 1,635 | 5,127 | 1,744 | 5,468 | 7 | 65 |
| 17. Lincoln Acres | 603 | 2,018 | 737 | 2,467 | 22 | 22 |
| 18. North Bookmobile | 7,196 | 19,598 | 14,739 | 40,293 | 105 | 106 |
| 19. Pine Valley | 1,014 | 1,906 | 1,279 | 2,409 | 26 | 26 |
| 20. Potrero | 134 | 378 | 473 | 1,342 | 253 | 255 |
| 21. Poway | 43 | 15 | 54 | 47 | 26 | 213 |
| 22. Ramona | 11,860 | 36,384 | 18,184 | 55,747 | 53 | 53 |
| 23. Rancho San Diego | 16,238 | 47,640 | 18,252 | 53,608 | 12 | 13 |
| 24. Rancho Santa Fe | 5,047 | 13,061 | 6,034 | 15,614 | 20 | 20 |
| 25. San Marcos | 10,620 | 31,442 | 20,038 | 59,393 | 89 | 89 |
| 26. Santee | 576 | 1,649 | 669 | 1,916 | 16 | 16 |
| 27. Solana Beach | 368 | 953 | 399 | 1,034 | 8 | 8 |
| 28. Spring Valley | 10,678 | 33,512 | 11,710 | 36,752 | 10 | 10 |
| 29. Valley Center | 4,941 | 13,759 | 10,436 | 29,539 | 111 | 115 |
| 30. Vista | 4,351 | 12,579 | 7,306 | 21,209 | 68 | 68 |

Note: The Cardiff by the Sea, Del Mar, Fletcher Hills, Encinitas, and Imperial Beach libraries are not expected to result in growth under the proposed General Plan Update and are therefore not included in this table.
Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 2.13-14. Table of Travel Time Standards for Fire Protection

| Travel Time | Regional Category (And/or Land Use Designation) | Purpose |
|---|---|---|
| 5 min | • Village (VR-2 to VR-30) and limited Semi-Rural Residential Areas (SR-1)<br>• Commercial and Industrial Designations in the Village Category<br>• Development located within a Village Boundary | This travel time is designed to help contain a fire to its room of origin and to respond quickly to medical emergencies. This standard applies to the County's more intensely developed areas, where resident and business expectations for service are the highest. |
| 10 min | • Semi-Rural Residential Areas (> SR-1 and SR-2 and SR-4)<br>• Commercial and Industrial Designations in the Semi-Rural Category<br>• Development located within a Rural Village Boundary | This travel time is designed to contain a fire to multiple rooms of origin. It provides a moderate level of service in areas where lower-density development, longer access routes and longer distances make it difficult to achieve shorter travel times. |
| 20 min | • Limited Semi-Rural Residential areas (>SR-4, SR-10) and Rural Lands (RL-20)<br>• *All* Commercial and Industrial Designations in the Rural Category | This travel time is designed to contain a fire to its foundation of origin, thereby minimizing the spread of structural fires to wildland areas. It is appropriate for very low density residential areas, where full-time fire service is limited and where long access routes make it impossible to achieve shorter travel times. |
| >20 min | • Very-low rural land densities (RL-40, RL-80, and RL-160) | Application of very-low rural land densities mitigate the risk associated with wildfires by drastically reducing the number of people potentially exposed to this hazard. Future subdivisions at these densities are not required to meet a travel time standard. However, independent fire districts should impose additional mitigation requirements on development in these areas. |

Note: The most restrictive standard will apply when the density, regional category and/or village/rural village boundary do not yield a consistent response time standard.
Source: DPLU 2009

**Table 2.13-15. San Diego County Sheriff's Department**
**2020 Law Enforcement Facilities Master Plan**
(Facilities in or Adjacent to Unincorporated Planning Areas)

| Facility | New | Existing | Approximate Occupancy Date | Approximate Site Area (acres) | Number of Staff |
|---|---|---|---|---|---|
| **Priority One** | | | | | |
| Rancho San Diego Station[(1)] | X | | 2008 | 5 | 153 |
| Imperial Beach Station | X | | 2008 | 2 | 77 |
| Alpine Station[(1)(2)] | X | | 2008 | 4 | 128 |
| 4S Ranch Substation[(1) (3)] | X | | 2008 | 1 | 34 |
| Lemon Grove Substation | | X | 2008 | - | 84 |
| **Priority Two** | | | | | |
| Vista Station | X | | 2010 | 5 | 174 |
| Santee Station | X | | 2012 | 5 | 160 |
| East Otay Mesa Substation[(4)] | X | | 2012 | 2 | 21 |
| **Priority Three** | | | | | |
| Ramona Station[(1)] | X | | 2015 | 2 | 44 |
| Pine Valley Substation[(1)] | X | | 2016 | 1 | 11 |
| Julian Substation[(1)] | | X | 2016 | - | 7 |
| Campo Substation[(1)] | | X | 2016 | - | 9 |
| **Priority Four** | | | | | |
| I-15 Corridor Station (proposed)[(1)] | X | | 2019 | 2 | 46 |
| Ranchita Substation[(1)] | X | | Q2 – 2020 | 1 | 21 |
| San Marcos Station | | X | Q4 – 2020 | - | 140 |
| Poway Station | | X | Q4 – 2020 | - | 67 |
| Fallbrook Station | | X | Q4 – 2020 | - | 54 |
| Valley Center Substation | | X | Q4 – 2020 | - | 42 |

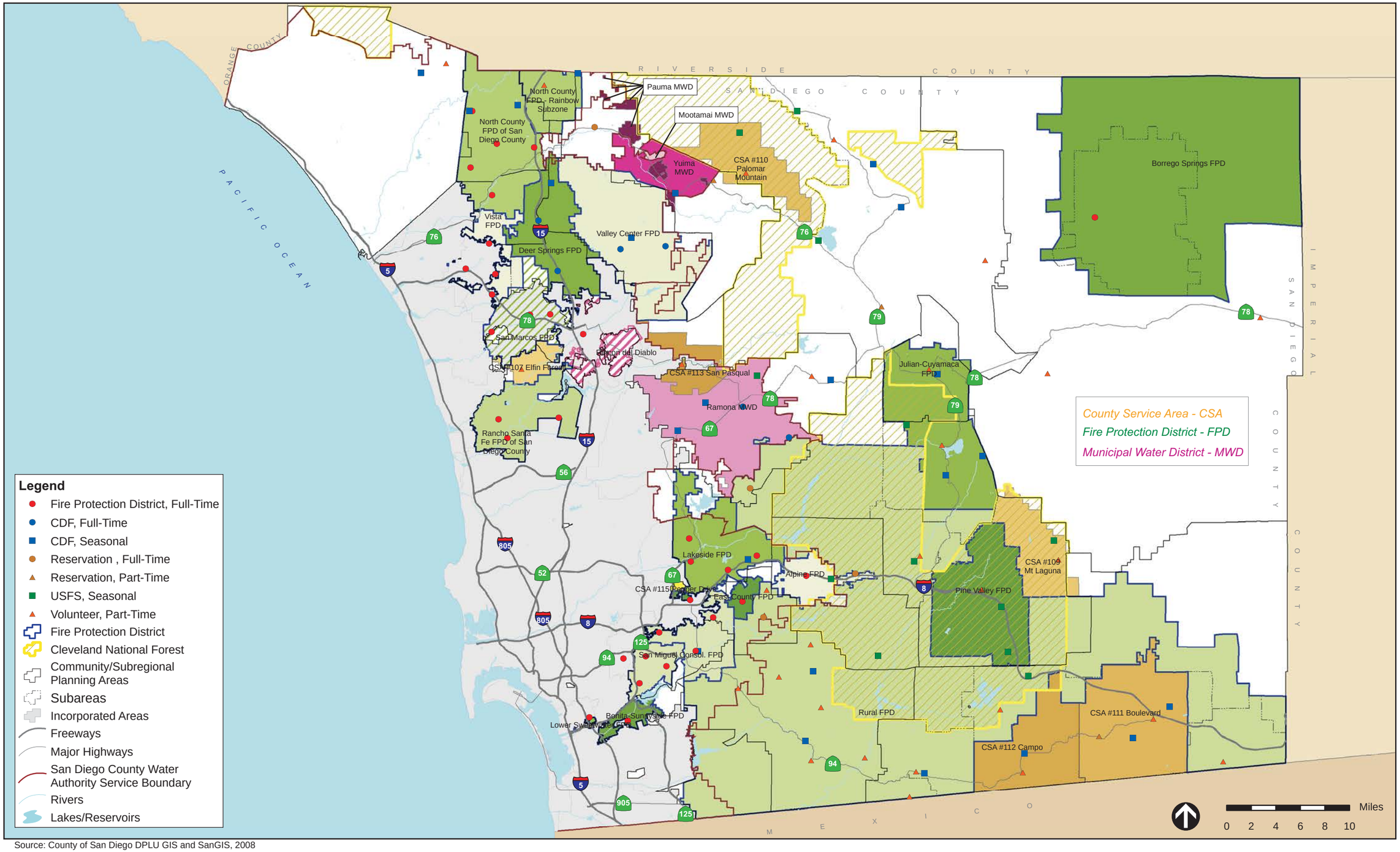
(1) Facilities in the unincorporated County
(2) New Alpine Station occupied Q2 - 2008 (CY)
(3) New 4S Ranch Substation occupied Q4 – 2007 (CY)
(4) Requirement identified in the East Otay Mesa Specific Plan
Source: DPLU 2007e

**Table 2.13-16. Projected San Diego County School Enrollment by School Year**

| Academic Year | 2006/ 2007 | 2007/ 2008 | 2008/ 2009 | 2009/ 2010 | 2010/ 2011 | 2011/ 2012 | 2012/ 2013 | 2013/ 2014 | 2014/ 2015 | 2015/ 2016 | 2016/ 2017 | 2017/ 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Student Enrollment** | 493,488 | 495,514 | 494,143 | 494,261 | 493,597 | 494,056 | 495,052 | 495,980 | 496,731 | 497,859 | 498,724 | 499,606 |

Source: DOF 2008b

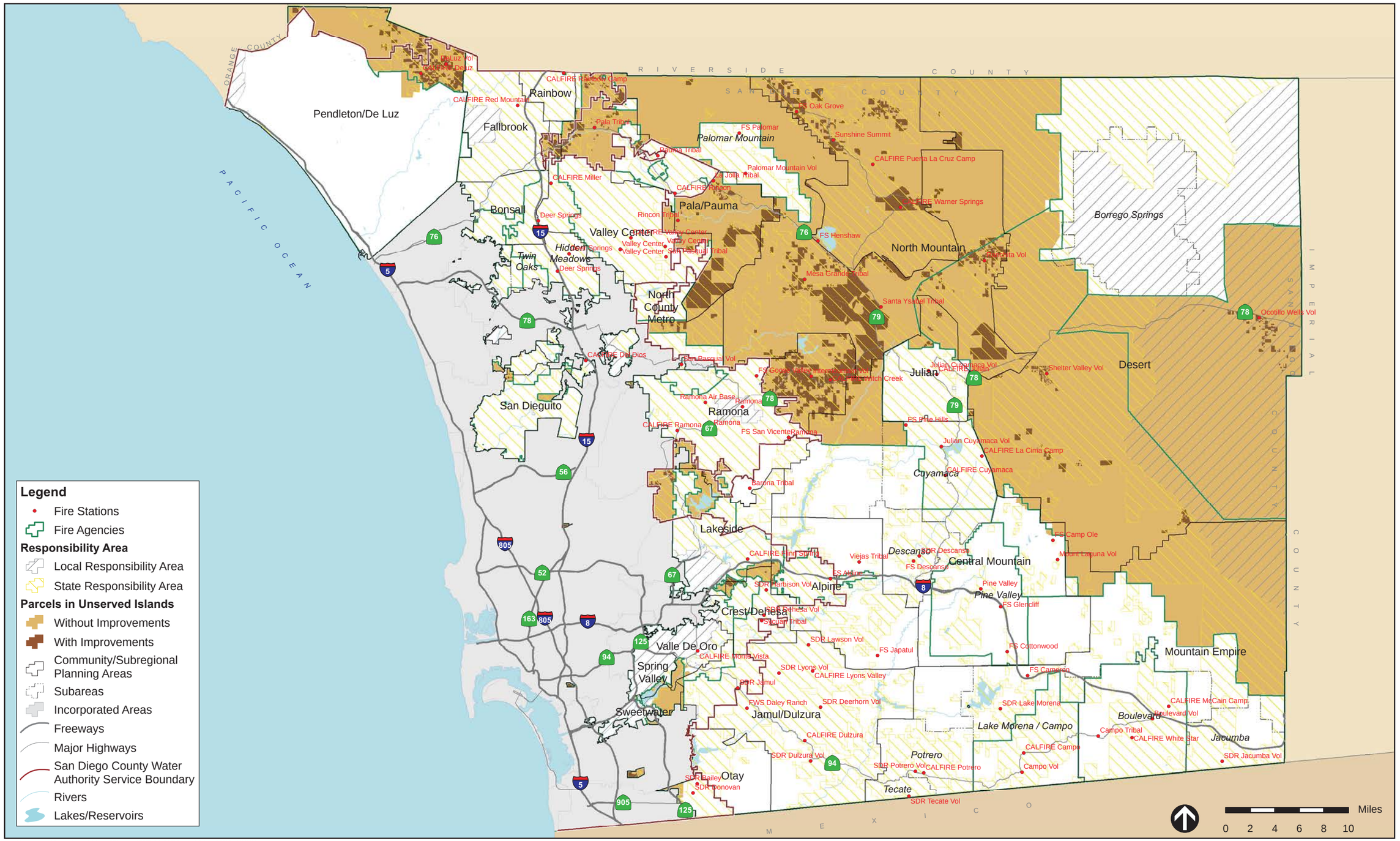
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Source: County of San Diego DPLU GIS and SanGIS, 2008

## FIRE PROTECTION ORGANIZATIONS

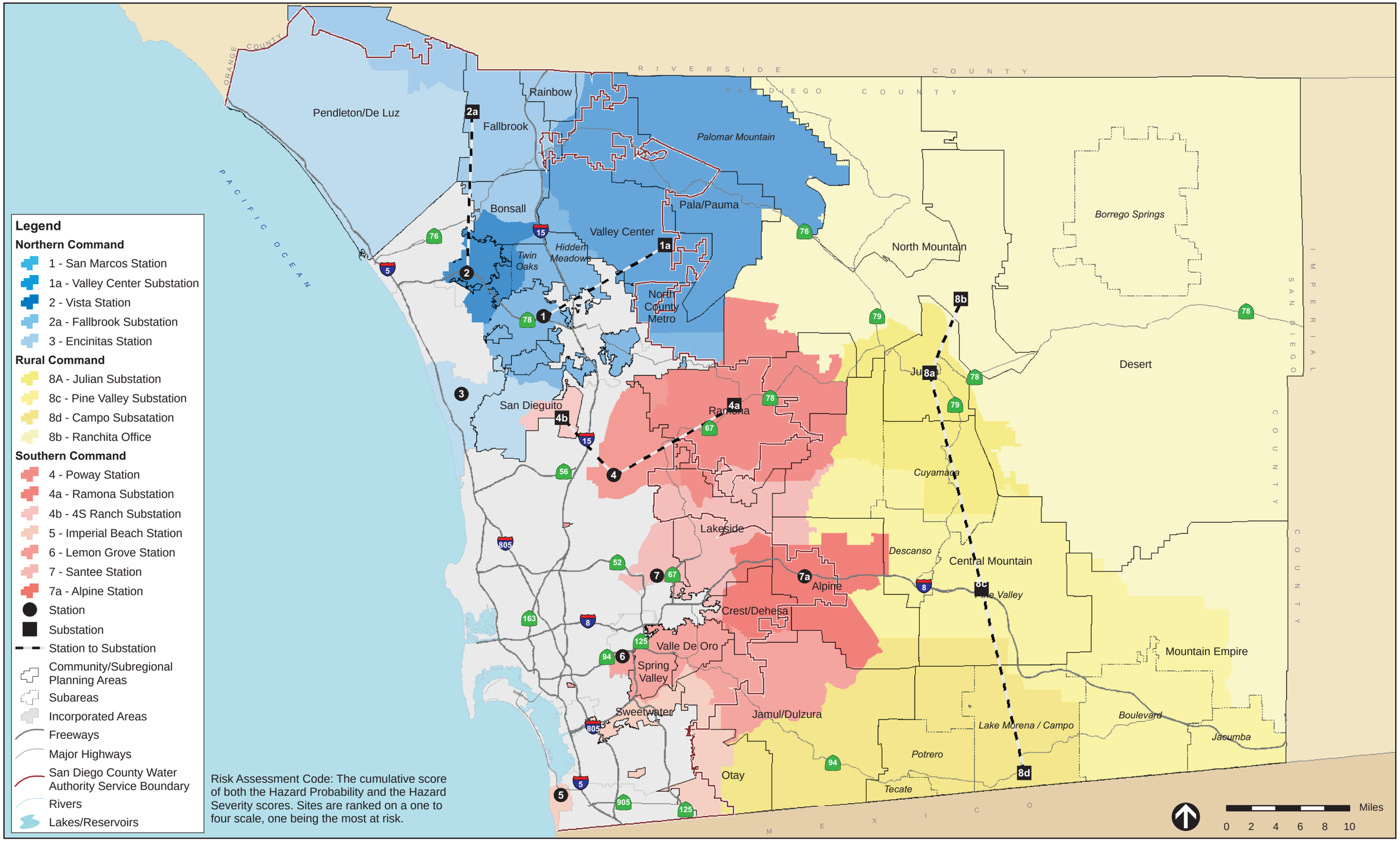
## FIGURE 2.13-1




Source: County of San Diego DPLU GIS and SanGIS, 2008

## UNINCORPORATED AREAS WITH NO FIRE PROTECTION

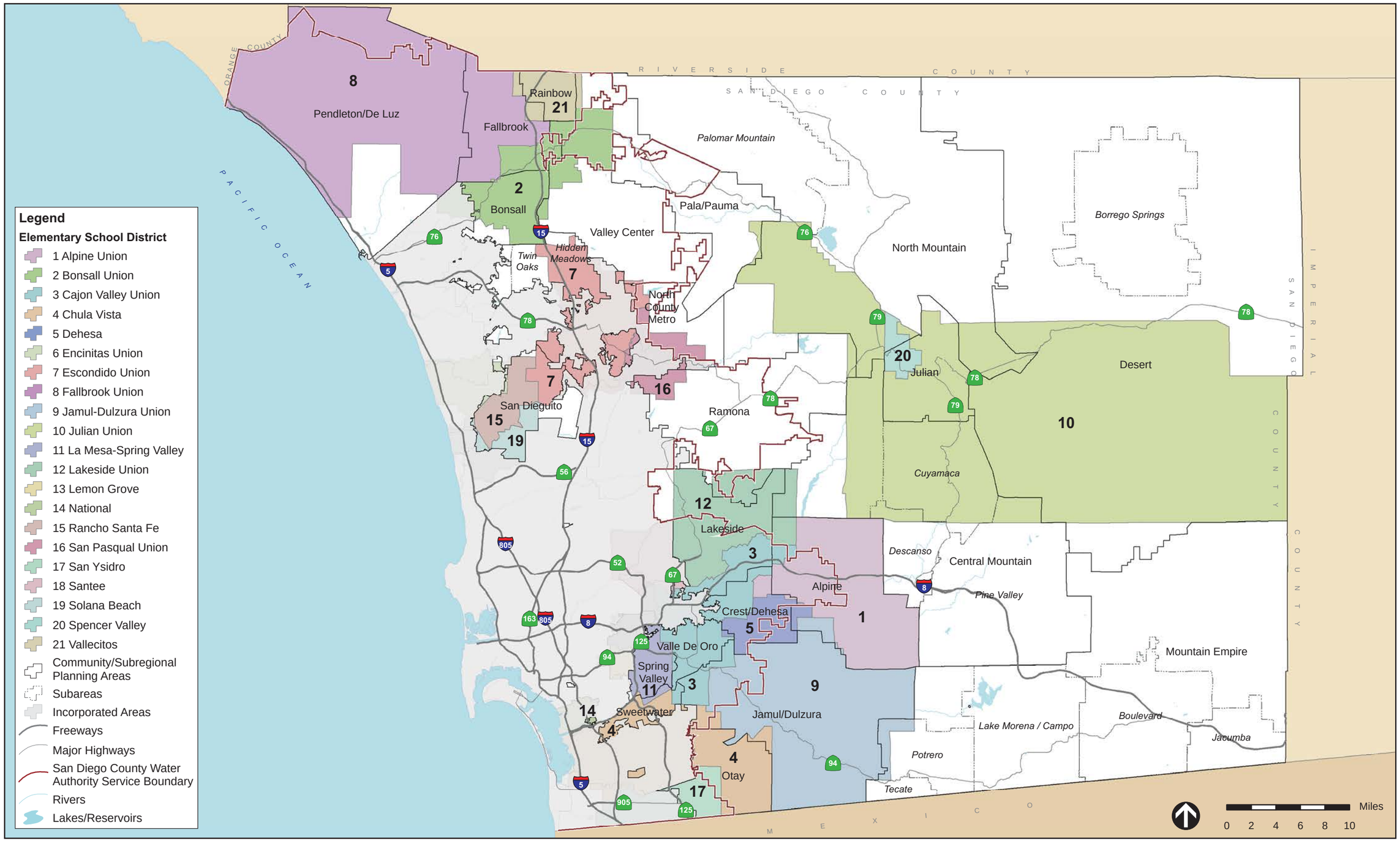
## FIGURE 2.13-2




Source: County of San Diego, 2008

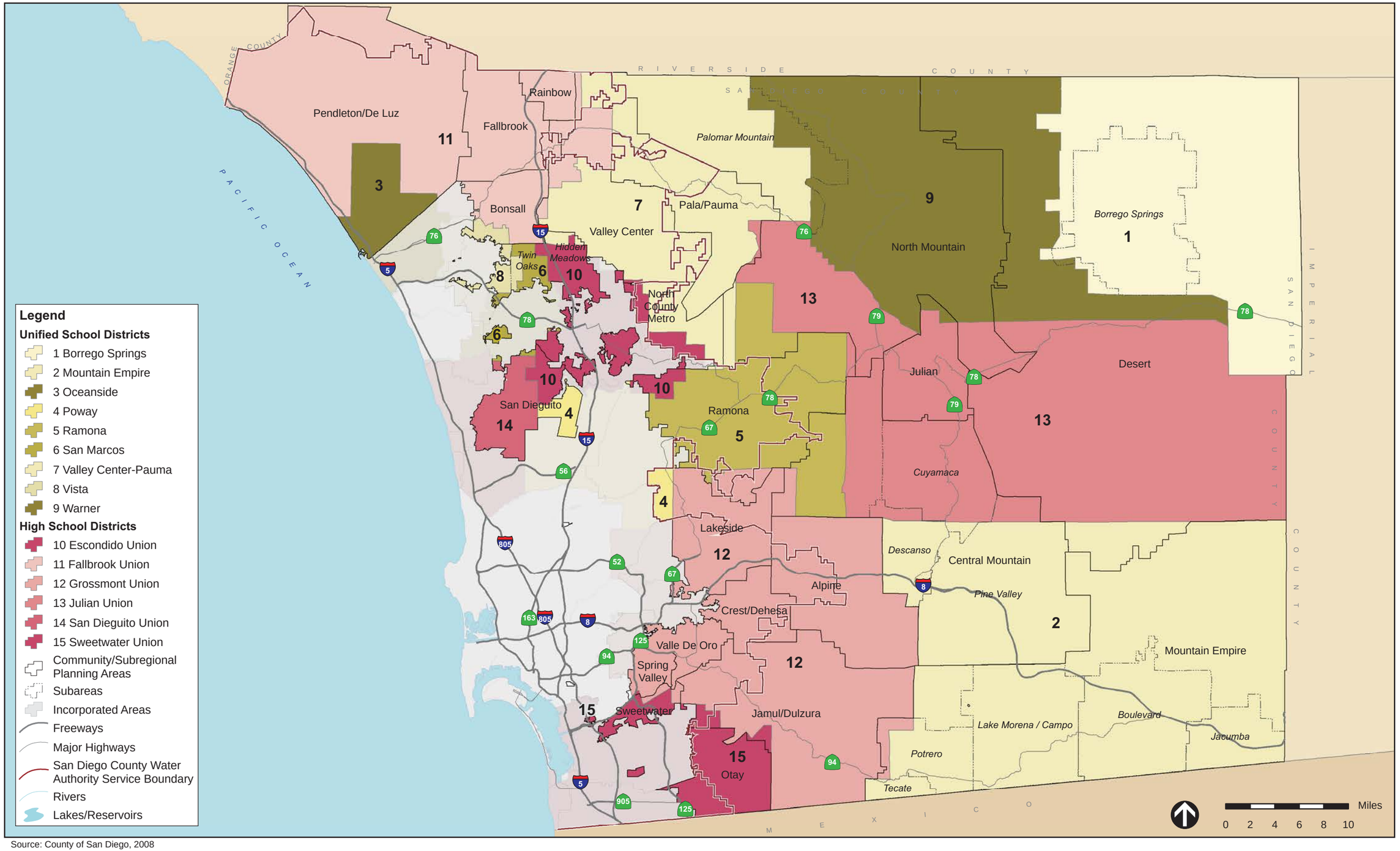
## LAW ENFORCEMENT FACILITIES AND COMMAND AREAS

## FIGURE 2.13-3




Source: County of San Diego, 2008

**ELEMENTARY SCHOOL DISTRICTS** **FIGURE 2.13-4**




Source: County of San Diego, 2008

## HIGH SCHOOL DISTRICTS

FIGURE 2.13-5

# 2.14 Recreation

This section describes and evaluates the potential impacts to recreational resources and facilities associated with the proposed General Plan Update. This section is based on review of the Conservation and Open Space Background Report (DPLU 2007b).

A summary of the recreation impacts identified in Section 2.14.3 is provided below.

**Recreation Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Deterioration of Parks and Recreational Facilities | Potentially Significant | Potentially Significant | Less Than Significant |
| 2 | Construction of New Recreational Facilities | Potentially Significant | Less Than Significant | Less Than Significant |

## 2.14.1 Existing Conditions

Parks and preserves provide recreational opportunities while protecting valuable natural and cultural resources. The County of San Diego Department of Parks and Recreation (DPR) maintains and enhances the quality of life for residents and visitors through a comprehensive program of acquisition, development and maintenance of recreation facilities including local and regional parks, fishing lakes, community centers, special use facilities, and preserves. In addition, a system of regional and community trails further enhances and augments public recreational opportunities and experiences throughout the San Diego region. These facilities cover more than 40,000 acres and are operated and maintained by County DPR staff, volunteers, and service contracts. The following section is organized into the following five topics that describe the existing recreational facilities, opportunities and related issues within the unincorporated County: 1) County operated recreational facilities; 2) recreational facilities managed by other non-County entities; 3) additional recreation opportunities; 4) funding/cost sharing; and 5) park and recreation needs.

### *2.14.1.1 County Operated Recreational Facilities*

The following section describes and discusses the types of recreational facilities within San Diego County that are owned, operated and/or maintained by County DPR. These include local parks, regional parks, preserves, and County trails.

**Local Parks**

Local parks can become the heart of a community when located within (or near) a town center or when centrally located within a community, although they are not limited to town centers. The role of local parks as community centers can also be enhanced by co-locating parks with community meeting and/or indoor recreation facilities or with schools, libraries and recreation centers. A good example of this is the Lindo Lake Park in Lakeside, which combines a library, a community center and outdoor recreation areas within Lakeside's town center. Table 4.14-1

provides a list of the existing local parks in San Diego County. Figure 2.14-1 shows the location of the local parks throughout the County.

In order to address a diverse range of conditions within various communities, the amount and type of local parks are tailored to an individual community's needs. For example, some communities may want larger, community parks while others may prefer an extensive system of smaller, neighborhood parks. The acreage goal indentified for local parks in the General Plan Update is 10 acres per 1,000 residents. There are three different types of local parks within the County. These are described below.

**Mini-Parks**

Mini-parks are small specialized facilities that serve a limited population who live, work or shop in a distinct area. They are typically less than one acre in size. Mini-parks generally offer active, child-oriented recreation, such as tot lots and picnic benches, combined with passive recreational uses.

**Neighborhood Parks**

Neighborhood parks serve a residential area, and should be located to minimize walking distances for residents. They typically range in size from five to ten acres, and may be associated with other public use facilities such as a school. Neighborhood parks provide both active recreation areas and/or facilities, such as game courts and jogging trails, and passive recreational areas such as family picnic areas and benches.

**Community Parks**

Community parks serve the community as a whole. They typically range in size from 20 to 50 acres and may be associated with other public use facilities such as a school. Community parks typically contain recreation areas including a community center, athletic fields, or facilities of special interest to the community. Smaller community parks may be located within or near town centers, where they can be used as common recreation and gathering areas by the community.

**Regional Parks**

Regional parks serve all County residents and visitors. They are usually larger than 200 acres, but smaller facilities may be appropriate for specific sites of regional interest. Regional parks often include educational components, such as an interpretive center or self-guided trails, as well as a variety of passive and active recreational uses. Most regional parks contain open space, natural resources, cultural resources and multi-use trails. The County's acreage goal for regional park facilities identified in the General Plan Update is 15 acres per 1,000 residents. Regional parks in the County are listed in Table 2.14-2. Figure 2.14-1 shows the location of regional parks throughout the County.

**Preserves**

Preserves include areas of environmental significance and beauty. The dual purpose of preserves is to protect sensitive environmental resources and to make these resources available for public recreation opportunities. However, typically only minimal improvements such as trails, parking and restroom facilities are found in preserves. Some preserves also provide

interpretive or educational amenities. Preserves vary in size depending on the resources being protected and public access can be limited according to the sensitivity of the resource. Table 2.14-3 lists the County-owned preserves located in San Diego County. Figure 2.14-1 shows the location of preserves throughout the County.

**Trails/Pathways**

The primary purpose of trails is to provide the recreation, transportation, health, and quality of life benefits associated with walking, hiking, mountain biking, and horseback riding throughout the County's varied environments. Trails also provide accessibility and connectivity to scenic and recreational areas. Trails are typically located away from vehicular roads and are primarily recreational in nature but can also serve as an alternative route for non-motorized transportation. They are soft-surface facilities for single or multiple use by pedestrians, mountain bicyclists and equestrians. Trail characteristics vary depending on location and user types.

Pathways are non-motorized transportation facilities located within a parkway or road right of way. Typical pathway width is 10 feet with decomposed granite or natural tread surface material. Pathways are intended to serve both circulation and recreation purposes. They provide a different experience from trails and are not an equivalent substitute; however, pathways help make critical connections and are an integral part of a functional trail system.

### *2.14.1.2 Recreational Facilities Managed By Other Entities (Non-County)*

San Diego County is fortunate to have significant unincorporated areas of open space lands that are owned and operated by federal, State, and other local government entities and non-profit organizations. These open space areas are generally maintained as unimproved open space in order to protect important resources. The State owned parklands are generally managed for both public recreation and resource conservation, while federal agencies may have a multitude of mandates. This section is intended to provide an inventory of the various types of open space and recreational facilities within the unincorporated County that are managed by other entities (non-County). The locations of these areas are shown in Figure 2.14-1.

**Federally Owned Lands**

The federal government owns 591,930 acres of predominantly open space land within the County. The USFS manages 291,380 acres in the Cleveland National Forest (including the Corral Canyon Park, a park that allows off-highway vehicle activities); the BLM manages 170,839 acres of land in the region; the Department of Defense manages 123,810 acres in Camp Pendleton; and the National Fish and Wildlife Service operates the San Diego National Wildlife Refuge, Tijuana Slough National Wildlife Reserve, and Sweetwater Marsh Wildlife Refuge, which collectively total 5,753 acres. The federal government provides for the management, conservation, and development of water, wildlife, forest, range, and recreational resources within these landholdings.

While Camp Pendleton functions primarily as a military base, it is also a significant open space area that provides sanctuary and habitat for plant and animal life, leased lands for crop cultivation and cattle and sheep grazing, as well as limited opportunities for recreation for

military personnel and their families including a YMCA facility and golf course. Camp Pendleton and an adjacent 1,000-acre portion of the Cleveland National Forest form the largest undeveloped landmass along the Pacific Coast between Los Angeles and the U.S./Mexico international border. It is also the only section of San Diego County coastline that remains unincorporated.

**State Owned Lands**

While State lands offer a variety of recreational facilities and opportunities, including campsites, trails, and swimming areas, the principal reason for land acquisition by the State is natural resource protection. State lands within the County provide a total of 557,552 acres of public open space and parkland. State land holdings in the unincorporated area of the County are listed below.

- Anza-Borrego Desert State Park is California's largest and oldest desert State park. It has great variety, from eroded badlands at near-sea level to piñon-juniper woodlands at 6,000 feet.
- Ocotillo Wells State Vehicular Recreation Area consists of a desert area that is available for off-highway exploration and recreation. Located adjacent to Anza-Borrego Desert State Park, this area has desert terrain, from below sea level to 400 foot elevations. It is a motorcycle, four-wheel drive, all-terrain vehicle, and dune buggy use area.
- Cuyamaca Rancho State Park consists of meadows, mountains, and oak woodlands. It provides popular facilities for equestrians, mountain bikers, and hikers, and also offers accessible camping, parking, picnicking, and a campfire center.
- Palomar Mountain State Park has spectacular views of the Pacific Ocean from its forested vantage point. Visitors can enjoy picnicking, hiking, and fishing here. It also offers accessible camping, restrooms, parking, and a campfire center.

**Local Government and Public Utility-Owned Lands**

Water and irrigation districts provide major open areas by means of reservoirs and protected water bodies. Many districts provide multi-use trails and staging areas such as Olivenhain Water District in the San Dieguito CPA, and the Otay Water District and Sweetwater Authority, both in the Sweetwater CPA. Recreational uses, including fishing and limited boating, are generally permitted on reservoirs owned and managed by the City of San Diego. Local government properties include lands used for a variety of primary purposes, but which also contribute to a sense of openness in the unincorporated area.

**Privately Owned Open Space Lands**

The range of privately owned open space lands includes uses such as private parks, private nature preserves, private land banks, golf courses, club playing fields, landscaped outdoor areas, and facilities such as animal or off-road vehicle parks. Private open space also includes floodplains, steep slope areas, seismic hazard zones, and sensitive habitats over which the County has land use authority. Many of these lands are owned and managed by non-profit conservation groups.

**Tribal Lands**

The County includes reservation lands held in trust by the federal government on behalf of 18 Native American tribal nations within its boundaries. These reservations consist of both developed and undeveloped land. However, recent casino construction on several reservations has altered the traditional use patterns and management of reservation lands. Although the County has no direct jurisdiction over these lands, it does coordinate with these agencies so that their use and management is as consistent as possible with the County's open space goals, particularly those goals related to natural resource conservation and recreation.

**Recreational Amenities By Other Entities (Non-County)**

In addition to the County, there are numerous agencies that provide park and recreation facilities that are open to the public. These may include school districts, community service districts, park and recreation districts, as well as non-profit agencies. In many instances, the County provides funding to these agencies for the construction of recreation facilities. In exchange for receiving the funding, the agency agrees to operate and maintain the facility as a public recreation amenity. Such agreements have facilitated the construction of recreation facilities in locations where the County would not otherwise be able to construct facilities due to a lack of operation and maintenance funding.

### *2.14.1.3 Additional Recreational Opportunities*

San Diego County has a wide variety of recreational opportunities that are provided by cooperative efforts among federal agencies, State agencies, local agencies, tribal entities, school districts, and private entities. These include such activities and facilities as camping, hiking, golfing, trails, equestrian centers, swimming facilities, boating, recreational vehicle parks, and off-road vehicle use areas. When possible, these recreational opportunities are coordinated with appropriate agencies, community groups, and non-profit organizations to assure consistency and compatibility with surrounding land uses and to ensure appropriate levels of necessary infrastructure. This is done through the discretionary review process and inter-jurisdictional cooperation. However, many parks are provided in the unincorporated area by special districts and school districts which do not require County approval.

**Off-Road Vehicles (ORVs)**

ORVs, also known as off-highway motor vehicles, have been increasing in popularity throughout California. ORV recreational areas are currently managed by the BLM, the U.S. Forest Service, and the California State Parks Department's Off Highway Motor Vehicle Recreation (OHMVR) Division. These authorities provide facilities management, law enforcement, and public awareness to preserve local habitats and ensure safety. The U.S. Forest Service, in cooperation with the State of California Off-Highway Vehicle Fund (Green Sticker Program), has developed ORV-friendly trails, roads, and facilities within the Cleveland National Forest (Corral Canyon). The BLM provides numerous opportunities for off-highway vehicle (OHV) recreation in the El Centro Resource Area, including Lark Canyon Off-Highway Vehicle Area. The California State Parks Department operates a State Vehicular Recreation Area at Ocotillo Wells. This facility will ultimately become a part of a State Motorized Trail System

**San Diego Regional Bicycle Plan**

The San Diego Regional Bicycle Plan is currently being developed as a complementary and supporting document to the SANDAG 2030 Regional Transportation Plan (RTP). The bicycle plan will represent the combined efforts of SANDAG staff, the SANDAG Regional Bicycle and Pedestrian Working Group (BPWG), local jurisdictions, local agencies, advocacy groups, and citizens in the San Diego region.

The goal of the plan is to encourage the development of a hard surfaced unified bicycle system throughout the San Diego region. The San Diego Regional Bicycle Plan will accomplish the following: 1) define a network of regionally significant hard surfaced bicycle routes, facilities, and necessary support programs; 2) identify gaps in the network and recommend specific improvements needed to fill the gaps; 3) develop cost estimates to complete construction of the regional network; 4) develop a funding strategy to build and maintain the regional bike network; 5) provide a design manual focusing on bicycle-friendly designs for all streets and roadways through new technologies, standards, guidelines, and innovative treatments on all new roadways; and 6) provide policy direction and identify programs to assist local jurisdictions in improving safety, education, and awareness about bicycle travel.

While all roadways are open to bicycle travel unless it is specifically prohibited, the California Highway Design Manual establishes three classifications of facilities specifically for bicycle traffic, including bike paths, bike lanes and bike routes. A bike path is defined as an 8- to 12-foot wide paved path within its own right-of-way. The purpose of a bike path is to provide a nonmotorized connection or access where it cannot be provided on the roadway. Bike lanes are defined as five-foot wide lanes striped on the outside of a roadway and identified with signs and pavement markings. Bike routes are roads designated by signs as preferred routes for bicycle travel. It should be noted that these classifications are different from those used within the County Trails Program (CTP) described below. The San Diego Regional Bicycle Plan envisions an intercommunity bikeway network that is a combination of these facility types. The San Diego Regional Bicycle Plan will be coordinated with the County Trails Program, the Regional Trails Plan and Community Trails Master Plan (CTMP) and the County's Bicycle Transportation Plan (described below in Regulatory Framework).

## *2.14.1.4 Funding and/or Cost Sharing*

Existing sources of funding for park acquisition, development, operation, and maintenance include the Park Lands Dedication Ordinance (PLDO), federal, State and local funds, donations and Joint Powers Authorities (JPAs). PLDO funds are specifically for local park land dedication or active recreation facilities but may be used for local serving active recreation in regional parks.

**Park Lands Dedication Ordinance (PLDO)/Quimby Act**

The Quimby Act specifies that new subdivisions may be required to dedicate land or pay a fee in-lieu of dedication for local parks at a level of three acres per 1,000 population. Up to five acres per 1,000 population can be required if the current local park acreage exceeds the three acre level. This ordinance requires developers to dedicate land, or pay or guarantee an in-lieu fee for the provision of local park facilities. These fees may be used for local-serving active recreation in regional parks.

**State and Federal Grants**

The California State Parks Office of Grants and Local Services and federal grant funds are available for both local and regional park acquisition and development. State grants are offered through State programs and bonds that allocate funds to specific types of project, such as the Habitat Conservation Fund, which has made $2 million available to date to cities, counties, and districts under the California Wildlife Protection Act that was originally passed in 1990. Projects that meet the program or bond requirements can submit an application for funding. National Resource Assistance Grants are available to local governments from the U.S. Fish and Wildlife Service to promote conservation and restore natural resources. State and federal grants are the single most important funding source for both acquisition and development of parkland.

**Joint Powers Authorities (JPAs)**

The County participates in JPAs and other agreements that establish partnerships with public and private agencies to develop, operate, and maintain recreational facilities on land typically owned by those agencies. The California Association of JPAs (CAJPA) defines a JPA as the joining together of two of more public agencies to provide more effective or efficient government services or to solve a service delivery problem, such as a shortage of recreational facilities (CAJPA 2008). Entities participating in these agreements are usually non-profit organizations and public agencies such as school districts.

Several existing JPAs plan, manage, and operate regional parks in San Diego County resulting in sharing of costs and thus cost savings. Two of the JPAs play a significant role in preserving regional public open space: the Otay Valley Regional Park and the San Dieguito River Park. Through contractual agreements between the County and other public agencies, non-profit organizations, and private entities, these JPAs provide regional public recreation and natural resource protection along important riparian corridors. These regional river parks are located in more than one jurisdiction and are planned and managed jointly by the jurisdictions within which they are located.

### *2.14.1.5 Park and Recreation Needs*

Perhaps the best indication of how well a community is meeting its park and recreation needs is the ratio of local or regional parkland per 1,000 residents. Table 2.14-4 below provides existing local park acreages for 2007. In this table, local parks needs are calculated using the proposed General Plan Update goal of 10 acres per 1,000 residents.

As shown in this table, some of the more urbanized unincorporated communities have higher deficiency in comparison to their rural counterpart. Currently, the County is deficient of a total of 3,966 acres of local parks, and retains a ratio of approximately 2 acres of parkland per 1,000 residents, half an acre less than was provided in 1990, and less than the County's goal of 10 acres per 1,000 residents. This total, however, does not include local and school-associated parks provided in the unincorporated area without any County involvement. Although these parks may meet some of the recreation needs of particular communities, access and use may be restricted and there is no inventory of these parks. Therefore, they were not included in this assessment. The CPAs with the highest deficiencies in local parks include Spring Valley and Lakeside, each with a local parkland deficiency of over 500 acres. The Spring Valley CPA is built out and competition for available land for new park facilities is higher in comparison to

backcountry communities such as Boulevard or Jacumba. Although the Lakeside CPA is deficient of local parks, there is an abundance of preserves including a Multiple Species Conservation Program (MSCP) area that borders the community of Crest, as well as three regional parks with a combined acreage of over 900 acres.

There are approximately 20,000 acres of regional parks serving County residents. About 12,000 of these acres are regional park lands located in other jurisdictions and established by JPAs or a memorandum of understanding. The ratio of the existing regional parks to the 2007 population of the unincorporated County is approximately 17 acres of parkland per 1,000 area residents, which exceeds the County's goal of 15 acres per 1,000 residents. An inventory of regional parks in other jurisdictions have not been compiled, therefore no measurement of regional parks against the region's population is included in this assessment.

The County also has a system of preserves that are distributed primarily in the western and central areas of the County with a total of approximately 26,000 acres. Figure 2.14-1 shows the location of preserves throughout the County.

The Quimby Act (Government Code Section 66477 et seq.) authorizes local jurisdictions to require developers to dedicate land or pay in-lieu fees for local parks. However, it also limits the County to a maximum of three acres per 1,000 population and up to five acres if the amount of the existing local parkland exceeds three acres per 1000 population. This represents a gap between the County goal of 10 acres per 1000 population and the developer's contribution of three acres.

## 2.14.2 Regulatory Framework

### *2.14.2.1 Federal*

**National Trails System Act of 1968 (Public Law 90-543)**

The National Trails System Act of 1968 instituted a nationwide system of interstate riding and hiking trails. At the State level, the California DPR has prepared the California Recreational Trails Plan. Federal and State governments realize the importance of preserving and developing new riding and hiking trails and adopted this legislation to protect existing trails and to provide for new trails and related facilities.

### *2.14.2.2 State*

**California State Government Code 66477 (The Quimby Act)**

This code specifies that new subdivisions can be required to dedicate land or pay a fee in-lieu of dedication for local parks at a level of three acres per 1,000 population. Up to five acres per 1,000 population can be required if the current local park acreage exceeds the three acre level. These fees cannot be used for regional serving improvements. The County implemented the Quimby Act by adopting the PLDO. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.

**California State Government Code 831.4**

This code was amended to limit landowners' liability for persons trespassing on his/her property for recreational purposes including riding and hiking.

**California State Government Code 846**

This code establishes that an owner of any estate or any other interest in real property owes no duty of care to keep the premises safe for entry or use by others for any recreational purpose or to give any warning of hazardous conditions on their premises to persons entering for such purpose, except as provided under specific circumstances as provided by the Code.

**Government Code Section 65910**

This regulation requires that every California County must adopt an open space zoning ordinance. Section 2800 of the County Zoning Ordinance meets this regulation.

**The Landscaping and Lighting Act of 1972**

The Landscaping and Lighting Act enables cities, counties, and special districts to acquire land for parks, recreation, and open space. A local government may also use the assessments to pay for improvements and maintenance to these areas. In addition to local government agencies (i.e., counties and cities), park and recreation facilities may be provided by other public agencies, such as community service districts, park and recreation districts, water districts, etc. If so empowered, such an agency may acquire, develop, and operate recreation facilities for the general public.

**Government Code Section 50575 et seq. (The Little-Used Open Space Maintenance Act)**

The Little-Used Open Space Maintenance Act is helpful when a city or county has already acquired open space, but doesn't have a way to pay for its maintenance. Under the act, local governments may levy special assessments, based on the value of the land, to improve and maintain open space; reduce fire, flood, and erosion hazards; and perform related activities.

**Senate Bill (SB) 1685**

SB 1685 authorizes open space districts to levy special assessments for open space purposes. The enabling legislation for regional open space districts is in the California Public Resources Code commencing with Section 5500 and in the Government Code commencing with Section 56000. Pursuant to this Code, regional park and open space districts are formed when three or more jurisdictions, together with any parcel of city or county territory, organize a contiguous area with the intent for the designated space to serve the park and recreational needs in San Diego County. SB 1685 is the same authority as that for regional park districts and open space districts.

**Open Space Easement Act of 1974**

Cities and counties may acquire open space easements pursuant to the Open Space Easement Act. Land must remain within an easement in perpetuity or, alternatively, for at least ten years. An easement's term is automatically extended each year by an additional 12 months. Under

certain circumstances, open space easements may be abandoned. Privately dedicated open space easements for mitigation purposes are dedicated in perpetuity and cannot be abandoned.

**The Conservation Easement Act of 1979**

The Conservation Easement Act enables a city, county, district, or nonprofit organization to acquire perpetual easements for the conservation of agricultural land and open space, or for historic preservation. Unlike open space easements, there is no procedure for non-renewal of conservation easements and there is no expiration date. In establishing an easement, a landowner and local agency agree upon the permitted land uses within the conservation area. The easement is binding upon successive owners of the land.

**Chappie-Z'berg Off-Highway Motor Vehicle Law of 1971**

The Chappie-Z'berg Off-Highway Motor Vehicle Law of 1971 designated the Off-Highway Motor Vehicle Recreation (OHMVR) Division of the California DPR as the primary authority to adopt courses of instruction in off-highway motor vehicle safety, operation, and principles of environmental preservation. The vehicle code is essential to enforcing safety and education in the recreational use of off-highway vehicles.

**Off-Highway Motor Vehicle Recreation Act of 2003**

The Off-Highway Motor Vehicle Recreation Act of 2003 recognizes the need for effectively managed OHV areas which are essential for a well rounded recreational experience. The law authorizes the allocation of grant funds for the purpose of establishing, maintaining, managing and rehabilitating OHV areas, trails and facilities in California.

### *2.14.2.3 Local*

**County of San Diego Department of Parks and Recreation (DPR), Strategic Plan**

The mission of the County of San Diego DPR is to provide opportunities for high quality parks and recreation experiences and to preserve regionally significant natural and cultural resources. The DPR Strategic Plan discusses what DPR does, including how it implements programs and achieves objectives.

**County of San Diego Trails Program (CTP)**

In January 2005, the County Board of Supervisors adopted the CTP. The components of the CTP include a Community Trails Master Plan (CTMP) and Regional Trails Plan as described below. The CTP also included a General Plan Amendment, a Mitigated Negative Declaration, and a Trails Ordinance regulating the use of trails and amendments to the County Subdivision Ordinances regarding dedication and improvement of trails.

The CTP allows the County to develop a system of interconnected regional and community trails and pathways. These trails and pathways are intended to address an established public need for recreation and transportation, and also provide health and quality of life benefits associated with hiking, mountain biking, and horseback riding throughout the County's biologically diverse environments.

## Community Trails Master Plan (CTMP)

The CTMP is the implementing document for the CTP and contains adopted individual community trails and pathways plans. The CTMP involves trail development, maintenance and management on public, semi-public and private lands. The main focus of the CTMP is to implement and maintain a realistic system of interconnected and continuous regional and community trails. The CTMP also includes development and management guidelines that can be applied to community level trail systems. Community trails will only be implemented in CPAs and Subregions wishing to participate in the program. The community trails maps contained in the CTMP depict corridors of general alignments. The term "general alignment" is used to describe the general location of a future trail generally within a quarter-mile wide corridor.

When an application for a specified discretionary development permit is submitted for land that includes a trail corridor, the specific location of a proposed trail within the trail corridor would be determined based on a trail route study. The route study would determine the appropriate location of the new trail in the corridor based on the trail design criteria included in the CTMP. The purpose of these criteria is to locate trails where they avoid causing impacts to sensitive habitat and other significant environmental resources. The environmental review for a proposed discretionary project would include a site-specific analysis of the trail proposed in the route study. The County may require the dedication of a trail easement and improvement of a trail on a case-by-case basis. Authority to require trail dedications is based on the established need for trails and findings relative to their public benefit and legitimate public function as described in the CTMP. Dedication is required when there is a necessary rough proportionality between the required dedication and the impacts of and/or benefits to the proposed development. Trail dedication is not required for ministerial (non-discretionary) permits, such as building permits.

## Regional Trails Plan

The Regional Trails Plan identifies County-approved general alignment corridors of regional trails in the County. Regional Trails have characteristics and conditions that serve a regional function by covering long linear distances, transcending community and/or municipal borders, having state or national significance, or providing important connections to existing parks and preserves.

The Regional Trails Map, shown in Figure 2.14-2, includes nine trails that provide significant north-south and east-west trail corridors that traverse the County. The nine trails included in the Regional Trails Plan are listed below.

- California Coastal Trail
- California Riding and Hiking Trail
- Coast to Crest Trail (San Dieguito River Park Trail)
- Juan Bautista De Anza Trail
- Otay Valley Regional Park Trail
- Pacific Crest Trail
- San Diego River Park Regional Trail
- Sweetwater River and Loop Trail
- Trans County Trail

Existing Regional Trail segments and proposed re-routes for portions of some of the regional trails are also identified on the Regional Trails Map. Major Regional Trail alignments can be modified through the GPA process.

**County of San Diego Bicycle Transportation Plan**

On October 29, 2008, the BOS re-adopted the County of San Diego Bicycle Transportation Plan, originally adopted on December 10, 2003. The Plan serves as a guiding document for bicycle facilities development in unincorporated areas. It identifies existing and proposed bicycle facilities for each community. Development of the Bicycle Transportation Plan was accomplished under close consultation with bicycle groups, SANDAG, and Caltrans. This plan continues to indicate opportunities for coordination with existing trails, as well as with development of the CTP. The Bicycle Transportation Plan identifies priority projects, including off-street bicycle paths (Class I), on-street bicycle lanes (Class II) and bike route signage (Class III). All priority locations are considered equal.

**Multiple Species Conservation Program (MSCP)**

The MSCP is a comprehensive, long-term habitat conservation program. The MSCP was developed to comply with the federal Endangered Species Act and the State Natural Communities Conservation Planning Act. It is a unique regional conservation effort that works across political boundaries and targets 172,000 acres of natural resource areas within 12 jurisdictions for conservation. The MSCP is important to recreation because it conserves San Diego's natural areas and quality of life and supports compatible recreation uses within the preserve areas while accommodating future growth by streamlining building regulations. MSCP documents regulate uses where sensitive biological resources occur. For example, Section 1.9 of the Subarea Plan addresses recreational uses within MSCP preserves.

**Zoning Ordinance (ZO) Section 4900 – Usable Open Space Regulation**

These regulations promote the availability of outdoor areas for leisure and recreation throughout San Diego County by establishing requirements for minimum areas of usable open space for residential developments with three or more dwelling units per lot or building site. The provisions for usable open space include standards for surfacing, location, size and shape, accessibility, openness, screening, and maintenance of the required usable open space.

**County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)**

The RPO protects sensitive lands and prevents their degradation and loss by requiring the Resource Protection Study for certain discretionary projects. It also preserves the ability of affected property owners to make reasonable use of their land subject to the conditions established. It is the intent of the ordinance to increase the preservation and protection of the County's unique topography, natural beauty, diversity, and natural resources and a high quality of life for current and future residents of the County of San Diego.

**County of San Diego Code of Regulatory Ordinances Sections 810.101-810.114, Park Lands Dedication Ordinance (PLDO)**

This ordinance requires that, as a condition of approval of specified types of development, the applicant shall dedicate land, pay fees in lieu of, or a combination of both, pursuant to the provisions defined in the ordinance for neighborhood and community park or recreational purposes to serve future residents of such development, unless the development qualifies for an exemption as defined in the ordinance.

**County of San Diego Code of Regulatory Ordinances Sections 812.101-812.104, Trail Defense and Indemnification Ordinance**

The County has an existing Trail Defense and Indemnification Ordinance. This Ordinance applies to the owner of a parcel of land on which, or adjacent to which, a trail has been dedicated to, and accepted by, the County for non-motorized recreational purposes. Under County Code Section 812.103, the County will defend and indemnify an owner of land from all claims and liability for injury to person or property that occurs on the trail, or incidental to the use of the trail, when used for recreational purposes. Certain specified injuries are excluded from the defense and indemnity obligation.

**County of San Diego Code of Regulatory Ordinances Sections 812.201-812.214, Trails Ordinances**

The County's Trails Ordinances, among other things, specify the uses allowed on trails (mountain bicycling, hiking, and horseback riding) and the activities that are prohibited (motorized vehicles, tampering with or destroying trail signs, placing or constructing any obstacle on a trail, etc.). Below are several County ordinances that pertain to trails.

**Ordinance No. 9701 (N.S.): An Ordinance Amending Sections 81.312, 81.402, 81.403, 81.609, 81.703 and 81.706 of the San Diego County Code Relating to Subdivision Improvements**

In this ordinance the BOS finds and determines that there is a significant demand for recreational trails throughout the unincorporated area of the County, but that there are not enough trails to meet this demand. The Board further finds that there is a need to provide trails for recreational, non-motorized use trails and that the provision of these trails will benefit the public. The Board further finds that the Subdivision Ordinance should be amended to provide for the dedication and improvement of trails in conjunction with the approval of major and minor subdivisions and revised maps, and provides amendments to the ordinances listed above.

**Ordinance No. 9702 (N.S.): An Ordinance Adding Sections 812.201 through 812.214 to the San Diego County Code Relating to Use Of Trails**

In this ordinance the BOS finds and determines that there are County recreational trails throughout the unincorporated area of the County and that there will be more such trails in the future as a result of the County Trails Program. The Board further finds that the use of these trails should be regulated to maximize the public's use and enjoyment of the trails. The Board further finds that the County Code should be amended to include provisions that regulate the use of public recreational trails, and defines these amendments.

**Ordinance No. 9703 (N.S.): An Ordinance Amending Section 81.102 of the San Diego County Code Relating To the Public Road Standards**

In this ordinance the BOS finds and determines that the adoption of the GPAs related to the CTP, the adoption of the CTMP and the repeal of BOS Policy I-116, "Policy for Establishing Criteria for the Development and Operation of a Regional and Community Plan Non-Motorized Trail and Pathways System," make it necessary to amend the County Public Road Standards, as described in the ordinance, and to delete references to Policy I-116 and add references to the Community Trails Master Plan.

**San Diego County Board of Supervisor (BOS) Policy F-26, Utilization of Park Fees and Interest Derived from Park Fees**

The purpose of this policy is to establish guidelines and procedures for the acquisition and development of parkland with fees derived from the PLDO and the maintenance and operation of County parks with the interest accumulated on Park Lands Dedication fees.

**San Diego County BOS Policy G-6, User Fees County Parks and Recreation Facilities**

The purpose of this policy is to define a policy for charging fees for the use of County operated parks and recreation facilities and to establish certain group exemptions to this policy.

**San Diego County BOS Policy G-15, Design Standards for County Facilities**

The purpose of this policy is to establish general principles and objectives for the design, construction and improvement of owned or leased County facilities.

**San Diego County BOS Policy I-4, Acquisition of Land with Federal Assistance Under the Open Space Program**

The purpose of this policy is to establish a method to be followed in the acquisition of property for use as open space as required by the Housing and Urban Development Act of 1965 (Public Law 89-117) and Title VII of the Housing Act of 1961, as amended.

**San Diego County BOS Policy I-44, Procedure for Designing New County Owned Community/Local Parks**

The purpose of this policy is to establish a procedure to involve Community Planning and Sponsor Groups, County Service Area Advisory Committees, Revitalization Committees or other designated advisory groups when the DPR designs a new community/local park.

**San Diego County BOS Policy J-37, Landscape Maintenance Districts**

The purpose of this policy is to define priorities and criteria for formation of Landscape Maintenance Districts and zones utilizing Landscape and Lighting Act proceedings (Streets and Highways Code, Section 22500, et seq.) for needs other than street lighting.

**Department of Planning and Land Use (DPLU) Policy, CP-15**

The DPLU Policy CP-15 establishes criteria to assist in the evaluation of proposals for Public Passive Park/Recreational Areas, as defined in the County Zoning Ordinance. Public Passive Park/Recreational Areas may be of any size and may include wilderness, ecological or natural preserves. These areas are classified in the Zoning Ordinance (Section 1335) as an example of the Essential Services use type.

## 2.14.3 Analysis of Project Impacts and Determination of Significance

### *2.14.3.1 Issue 1: Deterioration of Parks and Recreational Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

**Impact Analysis**

Implementation of the proposed General Plan Update would direct future population growth within the unincorporated County to the west, where the majority of infrastructure and service systems currently exist. The anticipated increase in population in this portion of the County would result in an increase in demand for recreational facilities in this area as well. An increase in population, regardless of location, would result in increased demand for recreational facilities, which has the potential to result in the deterioration of existing facilities. Table 1-4, Anticipated Increase in Population under the General Plan Update (2008-to-build-out), located in Chapter 1.0, Project Description, identifies the anticipated increase in the unincorporated County population by CPA under the proposed General Plan Update. As shown in this table, the CPAs most likely to experience substantial population growth under the proposed project include North County Metro (population increase of 39,441 persons); Valley Center (population increase of 21,051 persons); Ramona (population increase of 18,747 persons); Lakeside (population increase of 11,273 persons); Fallbrook (population increase of 16,702 persons); Bonsall (population increase of 15,940 persons); Otay (population increase of 10,909 persons); Alpine (population increase of 10,400 persons), and Jamul/Dulzura (population increase of 7,765 persons). Increases in population would result in an increased demand for recreational facilities, which would have the potential to result in the deterioration of these facilities.

Additionally, a forecasted increase in population in areas that currently do not have adequate recreational facilities would have the potential to result in the accelerated deterioration of these facilities from intensified overuse. Areas that currently have deficient facilities are especially vulnerable to accelerated deterioration because they already serve a greater population than intended. As shown in Table 2.14-4, the County is currently deficient in approximately 3,966 acres of local recreational facilities. CPAs located in the more urbanized western portion of the unincorporated County are generally already experiencing a deficiency in recreational facilities. The following CPAs have an existing acreage deficiency in local park and recreation needs: Fallbrook (384 acre deficiency); Ramona (170 acre deficiency); Alpine (164 acre deficiency);

Valley Center (126 acre deficiency); Bonsall (93 acre deficiency); Jamul/Dulzura (83 acre deficiency); and Otay (42 acre deficiency). These CPAs are more likely to experience accelerated deterioration of local recreational facilities than other areas because substantial population growth is anticipated in these areas under the proposed General Plan Update and existing facilities are considered deficient.

Another method to evaluate the potential for deterioration of recreational facilities under the proposed General Plan Update is to examine the existing recreational acreage goals and those that are proposed under implementation of the General Plan Update. Recreational acreage goals serve as the baseline level of service standard that guides the planning and monitoring of recreational facilities. Acreage goals are used as planning tools; however, recreational facilities are not automatically considered deficient if these goals are not met. The acreage goal indentified for local parks in the General Plan Update is 10 acres per 1,000 residents, while the acreage goal for regional park facilities identified in the General Plan Update is 15 acres per 1,000 acres. The proposed General Plan Update has a projected build-out population of 678,270 persons, which corresponds to a greater demand for recreational facilities in the unincorporated County. Using the acreage goals for local parks and regional park facilities, implementation of the proposed General Plan Update would generate new overall acreage targets of 6,782 for local park land and 10,174 for regional park land. Currently, approximately 840 acres of existing local park facilities and 20,000 acres of existing regional parks serve the unincorporated County (see Table 2.14-2). Therefore, the current acreage of local park land would not meet the projected goal for these facilities, whereas the existing supply of regional park area is expected to adequately meet the projected goal under the General Plan Update. If additional acreages of local park land are not provided in correlation with build-out of the project, then accelerated deterioration of existing recreational facilities would occur.

The forecasted increase in population under the proposed General Plan Update is also likely to result in an increase in the need for recreational facilities located outside of the County's jurisdiction, such as within jurisdictions that border the western CPAs and on federally and State owned lands. The County does not have land use jurisdiction over these areas; however, any recreational facilities that are open to the public are available for use by County residents. An increased demand for recreational facilities in areas outside the County would potentially lead to their physical deterioration from increased usage by County residents. The planning documents for federal and State owned recreational facilities evaluate the adequacy of existing and future recreational facilities within their jurisdictions.

Substantial increases in population growth are not planned in the eastern portion of the unincorporated County. As shown in Figure 2.14-1, most of the recreational facilities located in the eastern portion of the unincorporated County are owned by the State or federal government. While population is not forecasted to substantially increase in the eastern areas of the County, the recreational facilities in these areas would be available for use by all County residents, including residents of the western portion of the County where recreational opportunities are not as abundant. As such, recreational resources in the eastern portions of the County would also have the potential to result in deterioration from increased use as a result of the proposed project.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Multiple federal, State and local regulations exist to ensure recreational facilities are adequate within the County. Federal regulations include the National Trails System Act of 1968, which

governs the California Recreational Trails Plan. State regulations include the Quimby Act, which requires recreational facilities for new subdivisions; Government Code Section 65910, which requires counties to adopt an open space ordinance; the Landscaping and Lighting Act of 1972, which enables counties to acquire land for parks and recreation; the Little-Used Open Space Maintenance Act, which allows governments to levy assessments to maintain open space; SB 1685, which authorizes open space districts to levy special assessments for open space purposes; the Open Space Easement Act of 1974, which establishes standards for cities and counties to acquire open space; the Conservation Easement Act of 1979, which enables counties to acquire perpetual easements for the conservation of open space; the Chappie-Z'berg Off-Highway Motor Vehicle Law of 1971, which gives OHMVR authority over OHV use within California; and the Off-Highway Motor Vehicle Recreation Act of 2003, which creates management standards for existing and future off-highway vehicle areas. In addition, grants from State and County bond sources are available to fund park and recreational facilities in urban areas and funding for maintenance of those facilities would be provided through property assessments and taxes.

Local regulations that exist to ensure recreational facilities are adequate within the County include the DPR Strategic Plan, which establishes objectives for managing environmental resources within the County; the MSCP, which is a regional conservation effort for habitat preservation; the RPO, which helps protect sensitive lands and prevent their degradation; Zoning Ordinance Section 4900, which promotes the availability of outdoor areas in San Diego County; DPLU Policy CP-15, which establishes criteria to assist in the evaluation of proposals for recreational areas; BOS Policies, which establish guidelines, procedures, fee rates and objectives for recreational areas within the County; the PLDO, which requires in-lieu dedication fees for new development; the CTP and CTMP, which set standards for the development and management of guidelines for regional trails, community trails, and pathways; the Trails Ordinances, which specify allowed uses and activities on County trails; the County's Bicycle Transportation Plan, which guides the development of bicycle facilities in the unincorporated area; and the Trail Defense and Indemnification Ordinance, which applies to owners of private lands that contain or are adjacent to public trails.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update includes goals and policies that would minimize physical deterioration of parks or other recreational facilities. Within the Land Use Element, Housing Element, Mobility Element and Conservation of Open Space Element, various goals include specific policies to ensure that existing recreational facilities would not be adversely affected by implementation of the proposed General Plan Update. In the Land Use Element, Goal LU-12 ensures that infrastructure and services exist to support development by providing sustainable infrastructure, public facilities and essential services that meet community needs and are provided concurrent with growth and development. Policy LU-12.1 supports this goal by requiring the concurrency of infrastructure and services with development. Policy LU-12.2 would also support this goal by prohibiting new development that degrades existing facilities. These policies would reduce recreational facility deterioration by requiring fees or the construction of new recreational facilities.

The Mobility Element contains goals and specific policies to ensure that existing recreational facilities would not be substantially degraded by implementation of the proposed General Plan Update. Goal M-12 would create a safe, scenic, enjoyable and interconnected non-motorized, soft-surfaced multi-use trail system meeting the needs of County residents developed, managed

and maintained according to the Regional Trails Plan and the Community Trails Master Plan. Policies that support goal M-12 include, M-12.1, M-12.2, M-12.3, M-12.4, M-12.5, M-12.6, M-12.7, M-12.8 and M-12.10. These policies set planning standards, encourage the acquisition of new recreational lands and the construction of additional trails, identify trail improvement strategies, and encourage funding opportunities for recreational facilities. These policies provide guidance for improving recreational facilities within the County, and would reduce the potential for recreational facilities to be deteriorated.

The Housing Element contains one goal and one supporting policy to ensure that existing recreational facilities would not be substantially degraded by implementation of the proposed General Plan Update. Goal H-2 would create neighborhoods that respect local character and the natural environment by requiring specific design standards. Policy H-2.2 supports this goal by requiring certain projects to include on-site common open space, which would help avoid deterioration of public recreational facilities.

The Conservation and Open Space Element contains Goals COS-21, COS-22, COS-23, and COS-24 and specific policies to ensure that existing recreational facilities would not be substantially degraded by implementation of the proposed General Plan Update. Goal COS-21 sets park and recreational facilities standards to ensure facilities enhance the quality of life for County residents. Policy COS-21.1 and Policy COS-21.2 support this goal by promoting the diversity of recreational facilities and encouraging the location of new parks into community center areas. These policies would help create additional recreational facilities in areas with greater populations, thereby reducing the potential for facility deterioration. Goal COS-22 promotes high quality park and recreation programs, while meeting the needs of a diverse and growing population. Policy COS-22.1 supports this goal by encouraging additional recreational facilities for County residents. Goal COS-23 encourages the acquisition, monitoring and management of valuable open space resources where public recreational opportunities are balanced with the preservation of natural resources. Policies COS-23.1 and COS-23.2 support this goal by providing additional public access and regional coordination so that additional recreational opportunities can be made to County residents. Goal COS-24 aims for adequate funding for the acquisition, development, maintenance, management and operation of parks, recreation facilities, and open space preserves. Policies COS-24.1 and COS-24.2 support this goal by setting park and recreation contributions for new development and establishing maximum funding opportunities.

**Summary**

Implementation of the proposed General Plan Update would have the potential to result in the deterioration of recreational facilities throughout the County. Increases in population would result in increased use of recreational facilities, which would have the potential to result in the deterioration of existing facilities. Additionally, a forecasted increase in population in areas that currently do not have an abundance of local recreational facilities would have the potential to accelerate the deterioration of existing facilities from intensified overuse. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with deterioration of parks and recreational facilities, specific measures that implement these policies and regulations are proposed ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the deterioration of parks and recreational facilities and specific implementation programs are identified as mitigation.

### *2.14.3.2 Issue 2: Construction of New Recreational Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would include recreational facilities or require the construction or expansion of recreational facilities which would have an adverse effect on the environment.

**Impact Analysis**

Implementation of the proposed General Plan Update would require the construction and expansion of new recreational facilities to serve the forecasted population growth in the unincorporated County. The proposed General Plan Update specifically states that additional trails are needed close to population centers in the western portion of the County in order to provide residents with convenient access and opportunities to enjoy the recreational, health and transportation benefits associated with these facilities. Although the proposed General Plan Update encourages the construction of such trail facilities, it does not specifically designate the location of future facilities. Additionally, under the proposed General Plan Update, the park and recreational facilities goal warrants the construction and expansion of local parks in the unincorporated County, as discussed above in Section 2.14.3.1, Issue 1.

Recreational projects that are planned for development within the unincorporated County are included in a number of comprehensive planning documents, including but not limited to: the CTP, the Regional Trails Plan, the County Bicycle Transportation Plan, and the Annual Parks Improvement Plan. While each of these recreational plans has undergone separate environmental review, the General Plan Update land uses, goals, and policies further support the need for such programs; therefore, discussion of these plans is appropriate. As described above in the regulatory framework, the CTP provides an extensive trails system that supplements the road network as an alternative off-road travel mode for County residents. The Regional Trails Plan is part of the CTP; it identifies approved general alignment corridors of regional trails in the County. The existing and proposed trails system in the unincorporated County is shown on Figure 2.14-2. The Bicycle Transportation Plan guides development of bicycle facilities in each community and in the unincorporated area overall, taking into account existing and future trails. The 2008/2009 Annual Parks Improvement Plan prepared by County DPR identifies multiple capital improvement projects proposed through the year 2012. This plan provides a roadmap to ensure the County has the necessary facilities to accomplish its vision, mission, and strategic initiatives for the future. The Annual Parks Improvement Plan identifies projects throughout the County that are fully or partially funded. It also highlights potential projects that are contemplated for future budget periods. DPR capital improvement projects detailed in this plan include land acquisition for future parks, development of new recreational facilities, and enhancement or expansion of existing facilities and programs.

Although the proposed General Plan Update does not specifically site or plan recreational facilities, it would allow for the development of future recreational facilities, including parks, trails, athletic fields, and golf courses, within the proposed open space-recreation land use designation. Other land use designations would also allow for the development of new recreational facilities, such as village residential and semi-rural residential uses. The construction of new recreational facilities would have the potential to result in physical

environmental effects. These impacts have been analyzed in other sections of Chapter 2.0 of this EIR. In addition, recreational projects under the County's jurisdiction are subject to CEQA review prior to approval.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The federal, State and local regulations listed above under Issue 1, Section 2.14.3.1, are applicable to the issue of construction/expansion of recreational facilities. Additionally, for new development required to construct or expand recreational facilities to comply with the PLDO, the County evaluates all potentially significant impacts that would result from the additional improvements. Such facilities must also comply with applicable regulations protecting environmental resources, such as the Zoning Ordinance, the Noise Ordinance, the MSCP, the Habitat Loss Permit (HLP) Ordinance, PLDO and relevant Board Policies. In addition, environmental impacts would be minimized and mitigated to the extent feasible for all such projects pursuant to CEQA.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that would reduce the potential for construction and operation of new or expanded recreational facilities to have an adverse effect on the environment. Within the Land Use Element, Housing Element, Mobility Element and Conservation of Open Space Element, goals and policies are identified that pertain to the construction or expansion of recreational facilities. The Land Use Element contains Goals LU-6, LU-9, and LU-18 that encourage the development of recreational facilities in an environmentally sensitive manner. Goal LU-6 promotes a balance between development and the environment by encouraging a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. This goal is supported by Policy LU-6.4, which requires residential subdivisions to incorporate sustainable design. This policy would require subdivisions, which often include on-site recreational facilities, to reduce construction impacts to the environment. Goal LU-9 promotes the creation of well-defined, planned and developed community cores, such as villages and town centers, which contribute to a community's identity and character. Policy LU-9.7 supports this goal by utilizing guidelines to maintain the unique character of a community. This policy would reduce the aesthetic and other environmental impacts associated with the construction or expansion of recreational facilities. Goal LU-18 requires adequate civic uses that enhance community centers and places. Policy LU-18.2 encourages the co-location of civic uses, which would reduce environmental impacts such as traffic and noise by promoting development with multiple-uses, rather than multiple separate developments.

The Mobility Element contains Goal M-12, which includes specific policies to ensure that future construction or expansion of recreational facilities would not adversely impact the environment. Goal M-12 would create a safe, scenic and integrated trail system. Supporting Policies M-12.5, M-12.9 and M-12.10 guide the future development of trails in the unincorporated County to minimize environmental impacts and highlight existing natural resources.

The Housing Element contains Goal H-2, which includes specific policies to ensure that future construction or expansion of recreational facilities would not adversely impact the environment. Goal H-2 would create neighborhoods that respect local character and the natural environment by creating well designed development. Policy H-2.2 supports this goal by requiring some projects to create common open space as a project amenity.

The Conservation and Open Space Element contains Goals COS-21 and COS-23 which include specific policies to ensure that future construction or expansion of recreational facilities would not adversely impact the environment. Goal COS-21 sets standards for park facilities and requires park and recreational facilities protect natural resources. Policy COS-21.2, Policy COS-21.3, and Policy COS-21.4 support this goal by requiring parks to be appropriately located, designed to incorporate natural features, and preserve special and unique natural and cultural features. Goal COS-19 would encourage the acquisition of recreational resources while preserving natural resources. Goal COS-23 would be supported by Policy COS-23.3, which encourages coordination with public safety agencies to address safety concerns when planning the acquisition and management of open space.

**Summary**

The General Plan Update does not specifically plan or site new recreational facilities; however, land uses under the General Plan Update would allow for the development of future recreational facilities, including parks, trails, athletic fields, and golf courses. The construction of new recreational facilities or expansion of existing facilities would have the potential to result in physical environmental effects. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce impacts associated with construction or expansion of recreational facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact associated with the construction or expansion of recreational facilities and specific implementation programs are identified as mitigation.

## 2.14.4 Cumulative Impact Analysis

The geographic scope of cumulative impact analysis for recreational resources includes the entire County, including incorporated cities, and the adjacent Counties of Orange, Riverside and Imperial.

### *2.14.4.1 Issue 1: Deterioration of Parks and Recreational Facilities*

The cumulative projects in the San Diego region would have the potential to result in a significant cumulative impact if they would, in combination, result in the deterioration of parks and recreational facilities due to increased usage. Some cumulative projects, such as build-out of general plans for adjacent jurisdictions, would have the potential to increase the demand for recreational facilities, which could result in deterioration of existing facilities. However, the deterioration that would occur to parks and recreational facilities from regional population growth may be partially offset with funding from new development such as in-lieu fees for parks or donation of parkland pursuant to the Quimby Act. In addition, grants from State and County bond sources are available to fund park and recreational facilities in urban areas and funding for maintenance of those facilities would be provided through property assessments and taxes. However, other cumulative projects, such as the Wide-West Energy Corridor Project as discussed in Section 1.14.2.3, would allow development to occur on recreational lands which would potentially degrade environmental resources. In the case of the Wide-West Energy Corridor Project, impacts would occur to resources in the surrounding park, regional trails such as the Pacific Crest National Scenic Trail, and as well as impacts to air quality, aesthetics and noise. The majority of cumulative recreational projects would undergo environmental review,

and would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval. However, even cumulative projects that undergo environmental review would have the potential to result in significant and unavoidable impacts that could combine to form a significant cumulative impact from the removal or degradation of recreational facilities in the region. In addition, impacts that may be mitigated to a less than significant level on an individual project level would have the potential to result in a significant cumulative impact when combined with other project impacts. Therefore, a potentially significant cumulative impact would occur.

As discussed in Section 2.14.3.1, build-out of land uses designated under the General Plan Update would have the potential to increase use of existing neighborhood and regional parks such that it could substantially degrade recreational facilities. In combination with other identified cumulative projects in the region, the proposed project would contribute to a significant cumulative impact, and mitigation would be required.

### *2.14.4.2 Issue 2: Construction of New Recreational Facilities*

The cumulative projects in the San Diego region would have the potential to result in a significant cumulative impact if they would, in combination, require the construction or expansion of recreational facilities which would have an adverse effect on the environment. In order to accommodate future demand for park and recreational facilities from population growth in the San Diego region, additional park and recreational facilities will be developed and constructed throughout the region. In many cases, demand will be met through master plans and capital improvement projects approved by adjacent cities and counties. The BLM, NFS and tribal governments would also have the authority to approve recreational projects on their lands. Both the BLM and NFS maintain a list of future projects on their land that would require construction. Many of these projects include repairs or expansions of existing facilities and would not require extensive construction. Therefore, these projects would have limited physical impacts on the environment, because they would be located in existing park and recreation areas. Other cumulative projects, such as schools or residential projects in adjacent jurisdictions, would increase the need for recreational facilities in the region. While the majority of cumulative projects would be required to demonstrate compliance with CEQA and/or NEPA prior to project approval, they would incrementally increase the need for new or expanded facilities, which would have the potential to result in adverse environmental effects. Therefore, cumulative projects would result in a significant cumulative impact associated with the construction of recreational facilities.

As discussed above, the development of future land uses as designated in the proposed General Plan Update would increase the need for new or expanded recreational facilities, which would have the potential to result in adverse environmental impacts. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with construction of recreational facilities.

## 2.14.5 Significance of Impact Prior to Mitigation

Prior to mitigation, implementation of the proposed General Plan Update would result in potentially significant direct and cumulative impacts associated with the deterioration of existing recreational facilities and the construction or expansion of new recreational facilities.

## 2.14.6 Mitigation

### *2.14.6.1 Issue 1: Deterioration of Parks and Recreational Facilities*

Implementation of the following General Plan Update policies and mitigation measures would mitigate potential direct and cumulative project impacts related to the deterioration of parks and recreational facilities to below a level of significance.

**General Plan Update Policies**

**Policy LU-12.1: Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing. In addition to utilities, roads, bicycle and pedestrian facilities, and education, police, and fire services, transit-oriented infrastructure, such as bus stops, bus benches, turnouts, etc, should be provided, where appropriate.

**Policy LU-12.2: Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

**Policy M-12.1: County Trails System.** Implement a County Trails Program by developing the designated trail and pathway alignments and implementing goals and policies identified in the Community Trails Master Plan.

**Policy M-12.2: Trail Variety.** Provide and expand the variety of trail experiences that provide recreational opportunities to all residents of the unincorporated County, including urban/suburban, rural, wilderness, multi-use, staging areas, and support facilities.

**Policy M-12.3: Trail Planning.** Encourage trail planning, acquisition, development, and management with other public agencies that have ownership or jurisdiction within or adjacent to the County.

**Policy M-12.4: Land Dedication for Trails.** Require development projects to dedicate and improve trails or pathways where the development will occur on land planned for trail or pathway segments shown on the Regional Trails Plan or Community Trails Master Plan.

**Policy M-12.5: Future Trails.** Explore opportunities to designate or construct future trails on County-owned lands, lands within the Multiple Species Conservation Program (MSCP), or other lands already under public ownership or proposed for public acquisition.

**Policy M-12.6: Trail Easements, Dedications, and Joint-Use Agreements.** Promote trail opportunities by obtaining easements, dedications, license agreements, or joint-use agreements from other government agencies and public and semi-public agencies.

**Policy M-12.7: Funding for Trails.** Seek funding opportunities for trail acquisition, implementation, maintenance and operation.

**Policy M-12.8: Trails on Private Lands.** Maximize opportunities that are fair and reasonable to secure trail routes across private property, agricultural and grazing lands, from willing property owners.

**Policy M-12.10: Recreational and Educational Resources.** Design trail routes that meet a public need and highlight the County's biological, recreational and educational resources, including natural, scenic, cultural, and historic resources.

**Policy H-2.2: Projects with Open Space Amenities in Villages.** Require new multi-family projects in Villages to be well-designed and include amenities and common open space areas that enhance overall quality of life.

**Policy COS-21.1: Diversity of Users and Services.** Provide parks and recreation facilities that create opportunities for a broad range of recreational experiences to serve user interests.

**Policy COS-21.2: Location of Parks.** Locate new local parks and recreation facilities near other community-oriented public facilities such as schools, libraries, and recreation centers where feasible, so that they may function as the "heart" of a community.

**Policy COS-22.1: Variety of Recreational Programs.** Provide and promote a variety of high quality active and passive recreation programs that meet the needs of and benefit County residents.

**Policy COS-23.1: Public Access.** Provide public access to natural and cultural (where allowed) resources through effective planning that conserves the County's native wildlife, enhances and restores a continuous network of connected natural habitat and protects water resources.

**Policy COS-23.2: Regional Coordination.** Coordinate the planning, acquisition, protection, development, and management of open space among governmental agencies and private organizations to maximize opportunities to link regional open space lands.

**Policy COS-24.1: Park and Recreation Contributions.** Require development to provide fair-share contributions toward parks and recreation facilities and trails consistent with local, State, and federal law.

**Policy COS-24.2: Funding Opportunities.** Maximize funding opportunities for the following:

- The acquisition, expansion, and development of parks, recreation facilities, open space preserves, and trails.
- The operation, maintenance, and management of parks, recreation facilities, open space preserves, and trails.

**General Plan Update Mitigation Measures**

**Rec-1.1** Implement Board Policy I-44 to identify park and recreation needs and priorities for communities, and utilize the Community Plans when identifying park and recreation facility requirements.

**Rec-1.2** Coordinate with communities, agencies and organizations to identify, prioritize and develop park and recreation needs. This shall include pursuing partnership opportunities with school districts and other agencies to develop new park and recreation facilities; on-going support of the Park Advisory Committee and use of community center surveys to solicit input on park and recreation program and facility needs and issues; and continuing partnerships with other jurisdictions to share operation and maintenance costs for facilities via joint powers agreements.

**Rec-1.3** Prepare a design manual to provide concepts for park and recreation facility components.

**Rec-1.4** Participate in discretionary project review of residential projects with 50 or more units to identify park facility needs. Also, implement the Subdivision Ordinance to require the provision of trail and pathways shown on the Regional Trails Plan or Community Trails Master Plan. In addition, modify development standards and design guidelines to include common open space amenities, such as tot lots, and the use of universal design features that accommodate both abled and disabled individuals.

**Rec-1.5** Attain funding for land acquisition and construction of recreational facilities by taking the following actions: implement the PLDO; solicit grants and bonds to fund the operation and maintenance of park and recreation facilities; and form Landscape Improvement Districts and County Service Areas.

**Rec-1.6** Acquire trail routes across private lands through direct purchase, easements, and dedication, or by other means from a willing property owner/seller. Encourage the voluntary dedication of easements and/or gifts of land for trails through privately-owned lands, including agricultural and grazing lands.

**Rec-1.7** Prioritize the acquisition and development of trail segments in a manner to provide maximum environmental and public benefit given available public and private resources and the population served. As part of this effort, also maintain a database of information on the locations, status of easements, classifications, forms of access, management activities and land ownership relative to trail facilities.

**Rec-1.8** Implement and revise as necessary the Regional Trails Plan as well as the Community Trails Master Plan. This will ensure that community goals, policies, and implementation criteria are defined for community trails. Facilitate interjurisdictional coordination for the implementation of these plans.

**Rec-1.9** Consult with the appropriate governing tribal council to facilitate the provision of trail connections through tribal land and/or Native American cultural resources.

**Rec-1.10** Develop procedures to coordinate the operation and maintenance of pathways with similar activities for adjacent roads and road rights-of-way.

**Rec-1.11** Prioritize open space acquisition needs through coordination with government agencies and private organizations. Once prioritized, acquire open space lands through negotiation with private land owners and through MSCP regulatory requirements. The operation and management of such acquisitions will continue to be achieved by preparing, implementing, and updating Resource Management Plans and MSCP Area Specific Management Directives (ASMDs) for each open space area.

### *2.14.6.2 Issue 2: Construction of New Recreational Facilities*

The following General Plan Update policies and mitigation measures would mitigate proposed direct and cumulative impacts related to the construction of new recreational facilities to below a level of significance.

**General Plan Update Policies**

**Policy LU-6.4: Sustainable Subdivision Design.** Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public. [See applicable community plan for possible relevant policies.]

**Policy LU-9.7: Town Center Planning and Design.** Plan and guide the development of Town Centers and transportation nodes as the major focal point and activity node for Village areas. Utilize design guidelines to be compatible with the unique character of a community. Roadways, streetscapes, building facades, landscaping, and signage within the town center should be pedestrian oriented. Wherever possible, locate public facilities, such as schools, libraries, community centers, and parks in Town Centers and Villages.

**Policy LU-18.2: Co-Location of Civic Uses.** Encourage the co-location of civic uses such as County library facilities, community centers, parks, and schools. To encourage access by all segments of the population, civic uses should be accessible by transit whenever possible.

**Policy M-12.5: Future Trails.** Explore opportunities to designate or construct future trails on County-owned lands, lands within the Multiple Species Conservation Program (MSCP), or other lands already under public ownership or proposed for public acquisition.

**Policy M-12.9: Environmental and Agricultural Resources.** Site and design specific trail segments to minimize impacts to sensitive environmental resources, ecological systems, and agricultural lands. Within the MSCP preserves, conform siting and use of trails to County MSCP Subarea Plans and wildlife agency approved MSCP management plans..

**Policy M-12.10: Recreational and Educational Resources.** Design trail routes that meet a public need and highlight the County's biological, recreational and educational resources, including natural, scenic, cultural, and historic resources.

**Policy H-2.2: Projects with Open Space Amenities in Villages.** Require new multi-family projects in Villages to be well-designed and include amenities and common open space areas that enhance overall quality of life.

**Policy COS-21.2: Location of Parks.** Locate new local parks and recreation facilities near other community-oriented public facilities such as schools, libraries, and recreation centers where feasible, so that they may function as the "heart" of a community.

**Policy COS-21.3: Park Design.** Design parks that reflect community character and identity, incorporate local natural and cultural landscapes and features, and consider the surrounding land uses and urban form and cultural and historic resources.

**Policy COS-21.4: Regional Parks.** Require new regional parks to allow for a broad range of recreational activities and preserve special or unique natural or cultural features when present.

**Policy COS-23.1: Public Access.** Provide public access to natural and cultural (where allowed) resources through effective planning that conserves the County's native wildlife, enhances and restores a continuous network of connected natural habitat and protects water resources.

**Policy COS-23.3: Public Safety Involvement.** Coordinate with public safety agencies to address safety concerns when planning the acquisition and management of open space.

**General Plan Update Mitigation Measures**

Mitigation Measures Rec-1.1, Rec-1.2, Rec-1.3, Rec-1.4, Rec-1.8, Rec-1.9, and Rec-1.11 as described above in Section 2.14.6.1 would also mitigate impacts from the construction of new recreational facilities and are incorporated here by reference. In addition, the following mitigation measures are proposed:

**Rec-2.1** Update Community Plans to reflect the character and vision for each individual community; to address civic needs in a community and encourage the co-location of uses; to establish and maintain greenbelts between communities; to prioritize infrastructure improvements and the provision of public facilities for villages and community cores; and to identify pedestrian routes. With these issues addressed in community plans, potential impacts to visual resources, community character, natural resources, cultural resources, and traffic will be substantially lessened should new or expanded recreational facilities be needed in a given community.

**Rec-2.2** Use community design guidelines as a resource when designing park and recreation facilities. This will help ensure that such facilities are consistent with community character.

**Rec-2.3** Amend the Subdivision Ordinance to require new residential development to be integrated with existing neighborhoods by providing connected and continuous road, environmentally-sensitive pathway/trail and recreation/open space networks. Also add new conservation-oriented design guidelines for rural lands projects as part of this amendment. These measures will assist in the planning for recreational facilities as new development is proposed while minimizing impacts to sensitive resources and community character.

**Rec-2.4** Develop procedures to consider designating trails that correspond to existing (non-designated) trails, paths, or unpaved roadbeds that already have a disturbed tread. This will minimize new impacts to the natural environment and will potentially benefit existing trail users.

**Rec-2.5** Through implementation of Resource Management Plans, monitor and manage preserves and trails such that environmental resources do not become impacted as a result of soil erosion, flooding, fire hazard, or other environmental or man-made effects. Any impacts identified to environmental resources will be restored in accordance with the management directives within the Resource Management Plans.

**Rec-2.6** Develop procedures to encourage the involvement and input of the agricultural community in matters relating to trails on or adjacent to agricultural lands and place a priority on the protection of agriculture.

## 2.14.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.14.7.1 Issue 1: Deterioration of Parks and Recreational Facilities*

Build-out of the General Plan Update would increase use of existing neighborhood and regional parks, thereby resulting in accelerated deterioration of recreational facilities. Therefore, the proposed project would result in a potentially significant impact. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with deterioration of parks and recreational facilities. Implementation of the proposed General Plan Update policies and mitigation measures would mitigate the proposed project's direct and cumulative impacts to below a level of significance.

### *2.14.7.2 Issue 2: Construction of New Recreational Facilities*

Implementation of the proposed General Plan Update would require the construction or expansion of recreational facilities which may have an adverse effect on the environment. Therefore, the proposed project would result in a potentially significant impact. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with the construction or expansion of recreational facilities. Implementation of the proposed General Plan Update policies and mitigation measures would mitigate the proposed project's direct and cumulative impacts to below a level of significance.

## Table 2.14-1. Existing Local Parks and Recreational Facilities

| Park/Facility Name | Location | Park Operator | Acreage |
|---|---|---|---|
| **Community Parks** | | | |
| 4S Ranch Sports Facility | San Dieguito | County DPR | 22 |
| Alpine Community Center | Alpine | Alpine Community Center | 7 |
| Cactus Park | Lakeside | County DPR | 61 |
| Clemmens Lane Park | Fallbrook | County DPR | 1 |
| Collier Park | Ramona | County DPR | 8 |
| Descanso Community Park | Descanso | Mountain Empire Unified School District | 4 |
| East View Local Park | Bonita | County DPR | 6 |
| Eucalyptus Park | Spring Valley | County DPR | 6 |
| Fallbrook Community Center | Fallbrook | County DPR | 8 |
| Fallbrook (Ingold) Sports Park | Fallbrook | Fallbrook Sports Association | 18 |
| Goodland Acres | Spring Valley | County DPR | 1 |
| Hillsdale | Rancho San Diego | County DPR | 2 |
| Jamul/Dulzura Union School District Park | Jamul/Dulzura | Jamul/Dulzura Union School District | 19 |
| Julian Museum and Park | Julian | Julian Women's Club | 8 |
| Lincoln Acres | National City | County DPR | <1 |
| Lindo Lake Park/Lakeside Community Center | Lakeside | County DPR | 57 |
| Live Oak Park | Fallbrook | County DPR | 27 |
| Lonnie Brewer | Rancho San Diego | County DPR | 5 |
| Nancy Jane | Crest | County DPR | 2 |
| Old Ironsides Park | Harbison Canyon | County DPR | 4 |
| Palomar | Palomar | County DPR | 4 |
| Rios Canyon | Lakeside | County DPR | 10 |
| Robert Adams Community Park | Valley Center | Valley Center Parks & Recreation District | 38 |
| San Dieguito County Park | Rancho San Diego | County DPR | 125 |
| South Lane Park | Crest | County DPR | 11 |
| Spring Valley Community Center | Spring Valley | County DPR | 6 |
| Sweetwater Lane Park | Sweetwater | County DPR | 11 |
| Valley Center Community Park | Valley Center | Valley Center Parks & Recreation District | 14 |
| Ramona Wellfield Park | Ramona | Ramona Municipal Water District | 146 |
| **Subtotal** | | | **626** |
| **Neighborhood Parks** | | | |
| 4S Heritage Park | San Dieguito | County DPR | 6 |
| 4S Homestead Park | San Dieguito | County DPR | 2 |
| 4S Patriot Park | San Dieguito | County DPR | 6 |
| Bancroft Park | Spring Valley | County DPR | 4 |

**Table 2.14-1 (Continued)**

| Park/Facility Name | Location | Park Operator | Acreage |
|---|---|---|---|
| ***Neighborhood Parks Continued*** | | | |
| Cottonwood | El Cajon | County DPR | 5 |
| Damon Lane Park | Rancho San Diego | County DPR | 29 |
| Don Dussault Park | Fallbrook | County DPR | 1 |
| Estrella Drive Park | Spring Valley | County DPR | 7 |
| Hilton Head | El Cajon | County DPR | 10 |
| Holly Oaks | Ramona | County DPR | 42 |
| Rainbow Park | Fallbrook | County DPR | 4 |
| Ramona Community School Park | Ramona | Ramona Parks & Recreation Association | 5 |
| Steele Canyon Park | Rancho San Diego | County DPR | 8 |
| Woodhaven | Rancho San Diego | County DPR | 8 |
| **Subtotal** | | | **194** |
| **Total Local Recreational Facilities** | | | **820** |

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007b

## Table 2.14-2. Regional Parks

| Park/Facility Name | Location | Park Operator | Acreage | Camping |
|---|---|---|---|---|
| Agua Caliente | Anza-Borrego Desert | County DPR | 790 | Yes |
| Dos Picos | Ramona | County DPR | 79 | Yes |
| El Monte | Lakeside | County DPR | 88 | No |
| Felicita | Escondido | County DPR | 52 | No |
| Flinn Springs | El Cajon | County DPR | 41 | No |
| Guajome | Oceanside | County DPR | 546 | Yes |
| Heritage Park (Old Town) | San Diego | Private entity | | No |
| Lake Morena | Campo | County DPR | 3,273 | Yes |
| Louis A. Stelzer | Lakeside | County DPR | 371 | No |
| Los Penasquitos Canyon Preserve[1] | San Diego | County and City of San Diego | 4,000 | No |
| Mission Trails[2] | San Diego | City of San Diego | 5,900 | No |
| Otay Lake Park | Chula Vista | County DPR | 78 | No |
| Otay Valley Regional Park[3] | San Diego | County DPR, City of San Diego, and City of Chula Vista | 512 | No |
| Pine Valley | Pine Valley | County DPR | 17 | No |
| Potrero | Potrero | County DPR | 112 | Yes |
| Quail Botanical Gardens | Encinitas | Quail Botanical Gardens, Inc. | 29 | No |
| San Dieguito River Park[4] | San Dieguito | San Dieguito River Park Joint Powers Authority | 124 | No |
| San Luis Rey River Park | Bonsall | County DPR | 119 | No |
| Sweetwater Regional Park | Bonita | County DPR | 496 | No |
| Sweetwater Summit | Bonita | County DPR | 100 | Yes |
| Tijuana River Valley[5] | San Diego | County DPR | 1,840 | No |
| Vallecitos | Anza-Borrego Desert | County DPR | 61 | Yes |
| William Heise Park | Julian | County DPR | 972 | Yes |
| **Total** | | | **20,068** | |

(1) The Preserve is jointly owned and administered by the City and County of San Diego. County owns approx. 277 acres of the 4000 total acres.
(2) Mission Trails is located in and managed by the City of San Diego. County owns approx 1560 acres of the 5900 total acres.
(3) Approx. 484.88 acres owned by the City of San Diego and City of Chula Vista. Park is currently undeveloped and in the planning stage. County owns 512 acres of the approximate 1,000 total acres.
(4) The San Dieguito River Park Joint Powers Authority is formed by the County of San Diego and the Cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach
(5) City of San Diego owns approx. 120 acres within the park that are managed by the County under a Memorandum Of Understanding (MOU)

Note: Data has been rounded to nearest whole number.
Source: DPLU 2007b

## Table 2.14-3. County-Owned Preserves

| Open Space Preserve | Location | Acreage |
|---|---|---|
| Barnett Ranch | Ramona | 720 |
| Borrego Springs Preserve | Borrego Springs | 324 |
| Boulder Oaks | Ramona | 1,215 |
| Del Dios Highlands | Escondido | 455 |
| Escondido Creek | San Dieguito | 170 |
| Gopher Canyon | North County Metro | 24 |
| Hellhole Canyon | Valley Center | 1,864 |
| Lawrence and Barbara Daley Preserve | Jamul | 598 |
| In-Ko-Pah | Mountain Empire | 158 |
| Lakeside Linkage | Lakeside | 186 |
| Luef Pond | Ramona | 88 |
| Lusardi Creek | San Dieguito | 193 |
| Magdalena Ecke Preserve | Encinitas | 30 |
| Mason Wildlife Refuge | Potrero | 80 |
| Mount Gower Preserve | Ramona | 1,592 |
| Mountain Springs | Mountain Empire | 129 |
| Mt. McGinty | Jamul | 20 |
| Mt. Olympus | Rainbow | 712 |
| Oakoasis | Lakeside | 404 |
| Ramona Grasslands Preserve | Ramona | 460 |
| San Elijo Lagoon | Encinitas | 566 |
| Santa Fe Valley | San Dieguito | 228 |
| Santa Margarita | Fallbrook | 173 |
| Santa Ysabel Open Space Preserve | Julian | 5,322 |
| Simon Open Space Preserve | Ramona | 682 |
| South Bay Biological Study Area | Imperial Beach | 27 |
| Sycamore Canyon / Goodan Ranch | Poway | 2,186 |
| Volcan Mountain Wilderness Preserve | Julian | 2,732 |
| Wilderness Gardens | Pala/Pauma | 718 |
| **Total** | | **22,056** |

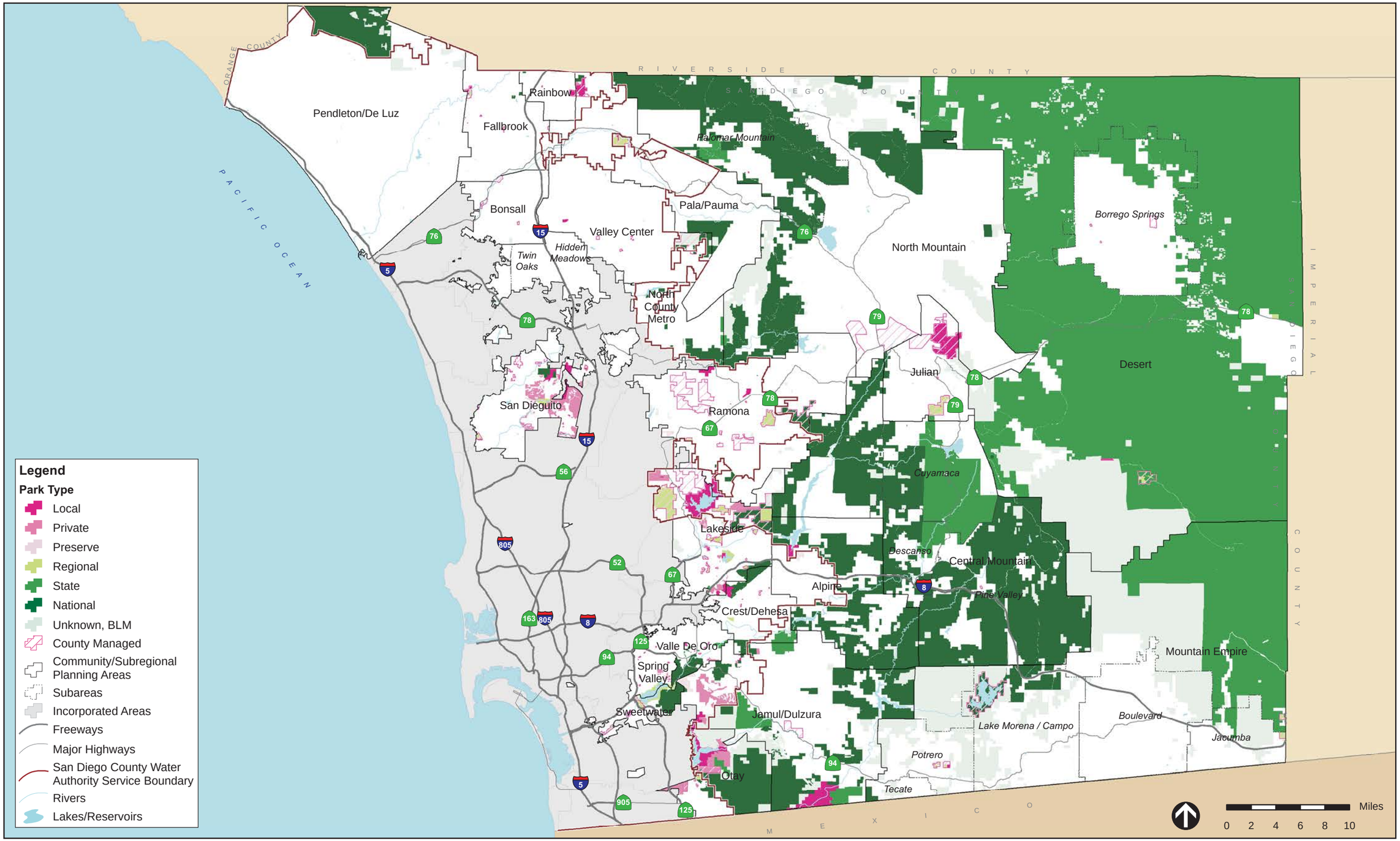
Note: These parks may contain trails, restroom facilities, and other amenities as secondary functions. Data has been rounded to nearest whole number.
Source: DPLU 2007b

## Table 2.14-4. Existing Local Park and Recreation Needs

| Community Planning Area | Existing Acreage | Existing Population | Acreage Goal | Acreage Shortage |
|---|---|---|---|---|
| Alpine | 7 | 17,123 | 171 | 164 |
| Bonsall | 0 | 9,692 | 96 | 93 |
| Central Mountain | 4 | 4,499 | 44 | 41 |
| County Islands | <1 | 2,037 | 20 | 20 |
| Crest/Dehesa | 17 | 10,009 | 100 | 83 |
| Desert | 32 | 3,439 | 34 | 2 |
| Fallbrook | 55 | 43,990 | 439 | 384 |
| Jamul/Dulzura | 19 | 10,239 | 102 | 83 |
| Julian | 8 | 2,921 | 29 | 20 |
| Lakeside | 128 | 74,408 | 744 | 615 |
| Mountain Empire | 0 | 6,356 | 63 | 63 |
| North County Metro | 0 | 42,229 | 422 | 422 |
| North Mountain | 4 | 2,395 | 23 | 19 |
| Otay | 0 | 4,256 | 42 | 42 |
| Pala/Pauma | 0 | 5,598 | 55 | 55 |
| Pendleton/De Luz | 0 | 40,165 | 401 | 401 |
| Rainbow | 4 | 1,825 | 18 | 13 |
| Ramona | 200 | 37,125 | 371 | 170 |
| San Dieguito | 162 | 27,615 | 276 | 114 |
| Spring Valley | 49 | 61,645 | 616 | 567 |
| Sweetwater | 11 | 13,039 | 130 | 118 |
| Valle De Oro | 66 | 42,234 | 422 | 355 |
| Valley Center | 53 | 17,970 | 179 | 126 |
| **Total** | **819** | **481,216** | **4,797** | **3,966** |

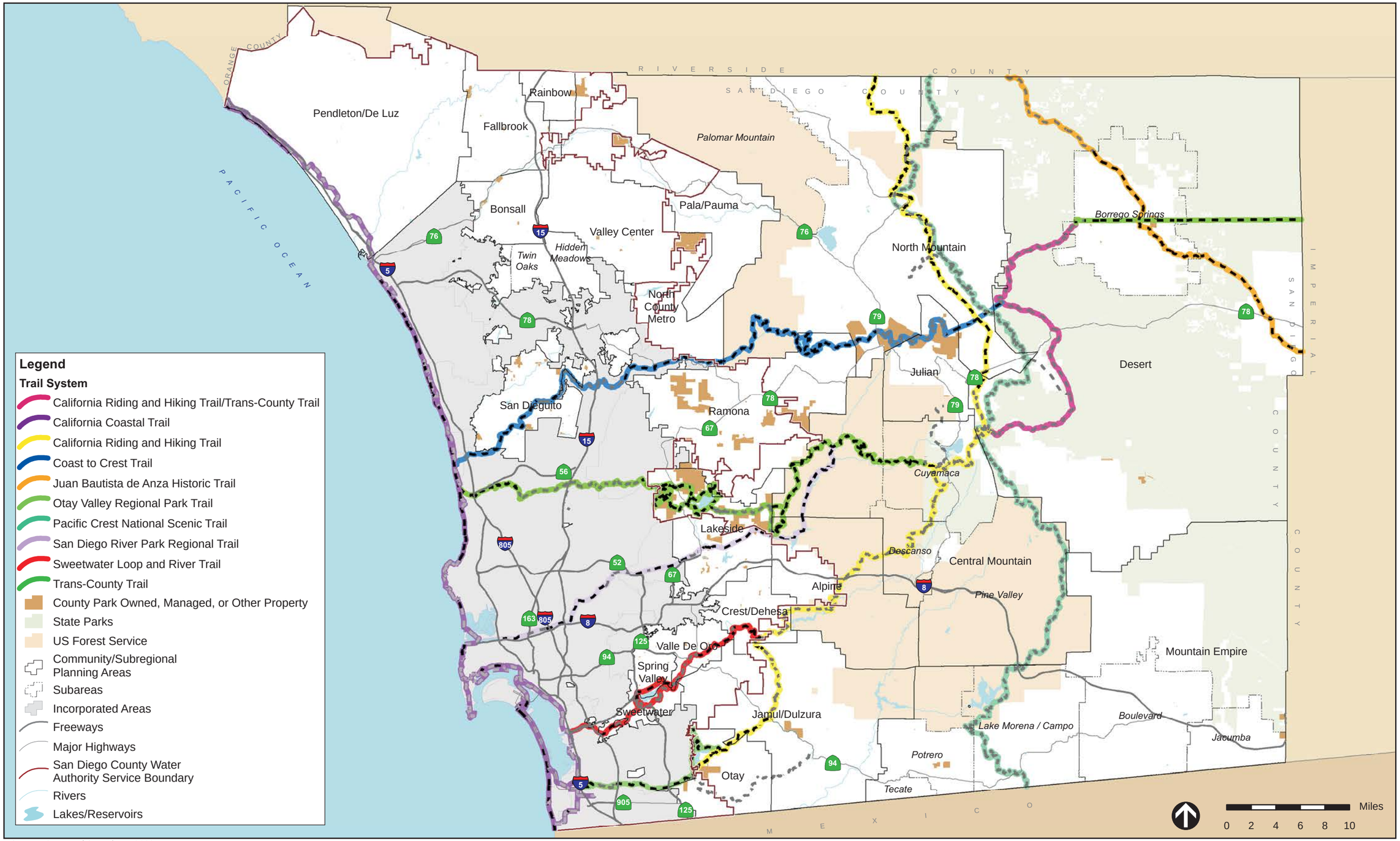
Note: Data has been rounded to nearest whole number.
Source: DPLU 2007b

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Source: County of San Diego, 2008

**EXISTING PARKS** **FIGURE 2.14-1**




Source: County of San Diego, 2008

**REGIONAL TRAILS MAP** **FIGURE 2.14-2**

# 2.15 Transportation and Traffic

This section describes and evaluates the potential impacts to transportation resources and traffic that could result from implementation of the proposed General Plan Update. Potential traffic impacts were evaluated based upon the County of San Diego Guidelines for Determining Significance, Transportation and Traffic (County of San Diego 2007p). This section provides a summary of the more detailed traffic analysis and traffic data provided in the County of San Diego General Plan Update Circulation Element Background Report (County of San Diego 2007a), the County of San Diego General Plan Update Traffic and Circulation Assessment (Wilson and Company 2009a), the County of San Diego General Plan Update Traffic Impacts to Adjacent City Jurisdictions Report (Wilson and Company 2009b), Road Register Reports from the County of San Diego Department of Public Works (DPW 2008b), the 2030 San Diego Regional Transportation Plan: Pathways for the Future (SANDAG 2007), and additional sources as cited throughout the section. The completed County of San Diego General Plan Update Traffic and Circulation Assessment (Wilson and Company 2009a) is located in Appendix G of this EIR while the completed County of San Diego General Plan Update Traffic Impacts to Adjacent City Jurisdictions Report (Wilson and Company 2009b) is included in Appendix H of this EIR.

A summary of the impacts to transportation and traffic identified in Section 2.15.3 is provided below.

**Transportation and Traffic Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Unincorporated County Traffic and LOS Standards | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 2 | Adjacent Cities Traffic and LOS Standards | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 3 | Rural Road Safety | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 4 | Emergency Access | Potentially Significant | Less than Significant | Less than Significant |
| 5 | Parking Capacity | Potentially Significant | Less than Significant | Less than Significant |
| 6 | Alternative Transportation | Potentially Significant | Less than Significant | Less than Significant |

## 2.15.1 Existing Conditions

This section of the EIR is divided into two subsections of transportation resources. The first subsection pertains to the unincorporated County and contains information on roadways and traffic, parking, bus and rail facilities, bicycle and pedestrian facilities, airport facilities, and transportation hazards. The second subsection pertains to transportation resources in adjacent cities. The adjacent Cities considered in this analysis include Carlsbad, Chula Vista, Del Mar, El Cajon, Encinitas, Escondido, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista. Adjacent city facilities were selected based upon two methods: 1) the individual jurisdiction's response to the Notice of Preparation (NOP) published for the proposed General Plan Update EIR; or 2) a compilation of regional arterial facilities in other jurisdictions obtained from the SANDAG 2030 RTP, which was then

refined based upon the location and connectivity to the roadway network within the unincorporated County.

### *2.15.1.1 Unincorporated County*

**Roadways and Traffic**

The County of San Diego General Plan Update Traffic and Circulation Assessment (Wilson and Company 2009a) was conducted as part of this EIR process for the proposed General Plan Update. The full report is included in Appendix G to the EIR. Conditions on the existing unincorporated County roadway network were evaluated in terms of roadway lane miles, Level of Service (LOS) conditions, and Average Daily Traffic (ADT) trips. In many cases throughout this assessment, roadway lane miles are analyzed, rather than roadway segments. This strategy was used to more directly address the extremely large number of roadway facilities that exist within the unincorporated County.

**Level of Service (LOS)**

***Definition***

LOS is a quality of service measure that describes the operational conditions on a transportation facility, such as a roadway or intersection. LOS is established based on the driver's perspective. This service measure is a general overall measurement of several conditions such as speed and travel time, freedom to maneuver, traffic interruption, and comfort and convenience. Safety is an important concern but, typically, is not included in the measures that establish service levels. Six LOS categories have been established using the letters A through F. LOS A represents the best operating condition with free flow with no delays while LOS F represents the worst operating condition with long delays where the volume of traffic exceeds the capacity of the roadway. Each LOS category represents a range of operating conditions and the driver's perception of those conditions. Methods for identifying LOS vary based upon the type of transportation facility. LOS measurement is used primarily to assess how substantial increases in vehicular traffic may affect traffic congestion on specific transportation facilities, such as freeways, arterials, and intersections. Procedures have also been established to adjust the evaluation to account for trucks, buses, roadway gradient, and pedestrian volumes. However, substantial traffic volume increases may also result in other traffic related impacts. Table 2.15-1 describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

***State Highway Level of Service Standards and Thresholds***

State highway LOS and performance is based upon procedures derived from the 2000 Highway Capacity Manual by the Transportation Research Board of the National Academies. The procedure for calculating LOS involves estimating a peak hour volume to capacity (V/C) ratio on state highways. The resulting peak hour V/C ratio is then compared to acceptable ranges of V/C values corresponding to the various Levels of Service, as shown in Table 2.15-2. The corresponding LOS represents an approximation of existing or anticipated future peak hour operating conditions in the peak direction of travel. As stated in the Caltrans Guide for the preparation of Traffic Impact Studies (Caltrans 2002), Caltrans endeavors to maintain a goal of LOS C on State highway facilities. However, Caltrans acknowledges that this may not always be feasible. In these circumstances, Caltrans often accepts lower LOS on facilities that are currently operating below the LOS C objective.

### *County Roadway Segment LOS Standards and Thresholds*

Roadway segment LOS standards and thresholds provide the basis for analysis of the existing Mobility Element (ME) roadway segment performance. The analysis of a County roadway segment is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast ADT volumes. Table 2.15-3 presents the current roadway segment capacity and LOS standards, as derived from the currently adopted County of San Diego Public Road Standards (DPW 1999). These standards were used for the analysis of existing conditions of unincorporated County roadways.

In addition to the expressway, arterial and collector roadway classifications, the County's roadway network includes local public roadways. The roadway design standards do not address roadway capacity or LOS standards for local public roads and, therefore, local public roads have not been included as part of the assessment of roadway network performance. Local public roads are intended to provide low volumes of ADT, property access and emergency evacuation, should the need arise. The capacity of such roadways can vary significantly based upon terrain, surface type, and cross-section.

### Roadway Capacity

The capacity of a roadway is the maximum number of vehicles that can be expected to traverse a uniform section of road within a specified time frame under prevailing roadway, traffic and control conditions. For intersections, state highways and other transportation facilities, capacity is often based upon the peak period. Capacity is related to LOS and V/C ratios are calculated based upon the capacity criteria of each LOS level. The highest volume attainable under LOS E defines the capacity of a roadway. Under LOS F conditions, the volume of traffic exceeds the capacity of the roadway. Operating conditions of a roadway at capacity are unstable and difficult to predict. If the roadway capacity is exceeded, operating conditions change dramatically. Average travel speeds are extremely low and stop-and-go traffic as well as excessive queuing may occur.

### Existing Roadway Network

The County of San Diego Department of Public Works Road Section is responsible for maintaining nearly 2,000 miles of County Mobility Element roadways and other transportation facilities within the unincorporated County. For level of service analysis purposes, the 2,000 miles of County maintained roads was subdivided into over 3,500 roadway segments. In addition the analysis also assessed over 380 roadway segments within the unincorporated County that are classified as Non-County maintained roads. Non-County maintained roadways include private roads (maintained by adjacent property owners), public roads (maintained by respective municipalities), and State highways (maintained by Caltrans). Table 2.15-4 provides the definitions for the roadway classification of County maintained roads. Figure 2.15-1, Figure 2.15-2, and Figure 2.15-3 identify existing major roadways within the North County, East County, and Backcountry areas of the unincorporated County, as designated under the existing General Plan Circulation Element. Roadways identified on these maps include Freeways (also known as State highways), expressways, prime arterials, major roads, collector roads, town collector roads, light collector roads, recreational parkways, rural collector roads, rural light collector roads, and rural mountain roads. It should be noted that for analysis purposes, one contiguous roadway was often divided into multiple segments. For example, the Mission

Road/SR-76 roadway located in Bonsall was divided into five segments for the purpose of analysis.

For the purpose of this analysis, northwestern communities include Bonsall CPA, Fallbrook CPA, North County Metro Subregion, Pala/Pauma Valley Subregion, Pendleton/De Luz CPA, Rainbow CPA, San Dieguito CPA and Valley Center CPA. Southwestern communities include Alpine CPA, County Islands CPA, Crest/Dehesa Subregion, Jamul/Dulzura Subregion, Lakeside CPA, Otay Subregion, Ramona CPA, Spring Valley CPA, Sweetwater CPA and Valle de Oro CPA. Eastern communities include Central Mountain Subregion, Desert Subregion, Julian CPA, Mountain Empire Subregion, and North Mountain Subregion. Table 2.15-5 describes the existing roadway network within the unincorporated County in terms of roadway lane miles in the northwestern, southwestern and eastern communities. This table displays lane miles by facility type, which includes State highways, Mobility Element roadways, and local public roads. Mobility Element roadways refer to the existing portion of the County Mobility Element roadway system that has currently been constructed. As shown, the existing roadway network includes 454 lane miles of State highway facilities, 2,190 lane miles of County Mobility Element roads, and 415 lane miles of local public roads, for a total of 3,059 lane miles in the unincorporated County. Lane miles represent the lengths of the roadway (linear miles) multiplied by the number of travel lanes. Planning areas that have the greatest number of roadway lane miles include Desert Subregion (308 miles), Mountain Empire Subregion (267 miles), North Mountain Subregion (262 miles), Ramona CPA (222 miles), and Central Mountain Subregion (215 miles). In total, the northwestern communities contain 884 roadway lane miles, southwestern communities contain 1,062 roadway lane miles, and eastern communities contain 1,113 roadway lane miles. Approximately half of the State highway lane miles in the unincorporated area are located in the eastern communities, with County Mobility Element roadway lane miles fairly evenly distributed amongst the northwestern, southwestern and eastern communities. The eastern communities have the fewest lane miles of local public roads.

**Existing Roadway Network Performance**

Existing LOS conditions were estimated based on a base year 2007 traffic forecast. Table 2.15-6 provides a summary of existing roadway performance in the unincorporated County, in terms of operating conditions and LOS. Roadway lane miles by LOS categories are reported for State highways and Mobility Element roads in the northwestern, southwestern, and eastern communities. Lane miles currently operating at LOS E and F are considered deficient facilities by County standards. As shown, a total of 152 lane miles of roadways (including approximately 12 lane miles of State highways and 140 lane miles of Mobility Element roads) are currently operating at LOS E. Planning areas with the greatest number of roadway lane miles operating at LOS E include Ramona CPA (21 miles), Lakeside CPA (17 miles), Fallbrook CPA (17 miles) and Valley Center CPA (14 miles). The majority of LOS E roadway segments occur in the northwestern and southwestern communities, while practically no LOS E roadway segments occur in the eastern communities.

Table 2.15-6 also identifies a total of 168 lane miles of roadway facilities (66 lane miles of State highways and 102 lane miles of Mobility Element roads) that are currently operating at LOS F. Communities with the greatest number of roadway lane miles currently operating at LOS F include: Lakeside CPA (33 miles), San Dieguito CPA (22 miles), Ramona CPA (19 miles) and Valle de Oro CPA (15 miles). The majority of LOS F roadway segments are located in the northwestern and southwestern communities, while practically no LOS F roadway segments occur in the eastern communities.

Table 2.15-7 displays the existing vehicle miles traveled (VMT) and ADT in the northwestern, southwestern, and eastern communities. VMT refers to the number of vehicle miles that occur daily on the existing roadway system, by area or community, while ADT refers to the average daily traffic volume that occurs on the existing roadway system, by area or community. ADT quantifies the magnitude of trip making as a function of the type and magnitude of the assumed land uses associated with the proposed project. Trip generation rates as applied to the various land use types for this project were consistent with those utilized in the SANDAG regional transportation model, with additional refinements by SANDAG and County staff to reflect the more rural nature and lower densities of typical County land uses. VMT is a measurement of the total miles traveled by all motor vehicles in the area for a specified time period. VMT is an indicator of the overall magnitude of travel associated with each of the land use. In general, a mix of land uses within closer proximity and requiring less driving distance for interaction would result in a lower VMT. Typically more dispersed and segregated (not mixed) land uses result in greater VMT.

As shown in Table 2.15-7, planning areas with the highest existing VMT include Pendleton/De Luz CPA (2,734,946 VMT), North County Metro Subregion (1,645,889 VMT), Lakeside CPA (1,483,082 VMT), Fallbrook CPA (1,356,481 VMT), and Bonsall CPA (1,179,857 VMT). The VMT associated with the Pendleton/De Luz CPA is attributable to a long stretch of Interstate 5 (I-5) that borders this CPA. As shown in this table, the communities with the highest existing ADT include Lakeside (436,719 ADT); Valle de Oro (383,205 ADT); Spring Valley (336,273 ADT); and Fallbrook (286,243 ADT).

**Traffic Conditions and Trends**

Historically, vehicle trips in the unincorporated County have been increasing at a faster rate than that of the population growth. Travel behavior is influenced by many factors, including demographics, land uses, lifestyles, the economy, employment locations, and work practices. The San Diego region has seen a gradual decline in commuting by carpool and transit in favor of driving alone. As projected in the 2030 SANDAG RTP (SANDAG 2007), the San Diego region faces a large increase in VMT during the next two decades. In 1990, daily travel demand was approximately nine million ADT. The region's current population makes an estimated 16.7 million ADT by some form of motorized travel.

Additionally, as a result of the increase in motor vehicle travel and limited financial capacity of jurisdictions to keep pace with demand, many of the region's major transportation facilities are operating at or beyond their capacity. Of all trips taken by transportation modes, the average trip length is more than six miles. Work travel, as measured in VMT, comprises 26 percent of all highway travel, while non-work travel makes up 74 percent of travel on the region's highways. Work trips tend to be longer than non-work trips. In 2007, work trips averaged 11.9 miles in length compared to 5.7 miles for the non-work trips. Work trips make up the largest portion of travel demand during the morning and afternoon peak periods, although there are large shares of other trips, such as shopping and recreation, in the afternoon hours. Morning trips tend to be mostly commuter trips, going directly from home to work. Evening trips involve a greater variety of origins and destinations causing the evening peak period to spread out over a longer period of time. School trips constitute the smallest share of trips throughout the day. It is the peaking of travel demand during short periods of the day that strains the regional transportation system, which has excess capacity during off-peak periods. The average commute time in the region grew by only three minutes between 1990 and 2000, indicating that people make personal adjustments to keep commute times reasonable (SANDAG 2007).

## Parking

Generally, the location of parking is designed to ensure a safe environment for drivers and passengers to exit a parked vehicle, provide convenient access to the driver's and passenger's destination, and minimize indirect impacts to adjoining properties including noise, visual and lighting impacts. However, parking conditions have the potential to influence travel patterns, alternative transportation use, land use planning, and pollution. Examples of these influences include: 1) if too much parking is provided, portions of the site are paved unnecessarily, causing excess stormwater run-off along with urban design issues; 2) if an insufficient number of parking spaces are provided, drivers will travel through the site and surrounding environment searching for a space, causing unnecessary congestion on adjacent roads, and often impeding the loading and unloading of goods or the movement of pedestrians; and 3) ample parking supply encourages the use of single-occupancy vehicles, while downplaying transit, pedestrian traffic, and safety.

Current parking conditions across the unincorporated County are based on standards outlined in the County Zoning Ordinance (Sections 6750-6799) and the County's Off-Street Parking Design Manual (June 1985). The regulated number of parking spaces for various developments is addressed in a parking schedule, which categorizes the number of spaces required according to land use type and building size. The dimension of parking spaces varies depending on angle of parking (0°, 30°, 45°, 60°, or 90°), striping of spaces (single or double), and whether the parking is intended for compact, regular, or handicapped vehicles. Regular parking spaces that are not for parallel parking measure 8.6 feet by 18 feet. Handicapped parking spaces that are not for parallel parking measure 14 feet by 19 feet. Different striping plans may further reduce the width of regular and handicapped spaces, as identified in the Off-Street Parking Design Manual. Most land uses, particularly office and retail, also require motorcycle and bicycle spaces, typically at a ratio of 1.5 bicycle spaces for each 10 parking spaces, with no less than three spaces provided.

Current County parking regulations lack sufficient criteria to differentiate between parking space requirements for many types of non-residential land uses. The regulations address retail uses according to building size, but do not address differences in the types of retail uses. For example, under the current regulations, a 35,000 square foot supermarket would require the same number of parking spaces as an appliance store of the same size. However, a supermarket generally has more customers at a given time than an appliance store, and would be expected to generate more traffic.

Exceptions to the parking standards outlined in the Zoning Ordinance, Sections 6750-6799, include three designated special parking districts. The three special districts include areas that are developed or subdivided with more urban characteristics along segments of the following roads: 1) Main Avenue in Fallbrook; 2) Maine Avenue in Lakeside; and 3) Main Street/SR-67 in Ramona. They have been designated as special districts in an effort to encourage economic revitalization. Parking requirements for projects located within these districts are determined on a case-by-case basis. The number of spaces is determined by the parking generation characteristics of the land use and the physical limitations of the site.

## Bus and Rail Service

Bus and rail service are the primary modes of public transportation that serve the needs of unincorporated County residents. The two primary agencies that deliver transit services within

the unincorporated County are the MTS and the NCTD. MTS is the region's largest provider of transit services, and has a service area population of 1.93 million (approximately 71 percent of the County's population). MTS serves approximately 86 million passengers or 275,000 passengers each weekday through bus and trolley service. NCTD provides bus and rail service to 1,020 square miles and approximately 870,000 people in the northern region of the County. Figure 2.15-4 shows the service area boundaries for MTS and NCTD. Bus and rail services in the unincorporated area are primarily provided to the more densely populated communities in the western portion of the County, while bus and rail service is severely limited in backcountry areas. Figure 2.15-5 provides an overview of bus and rail lines that serve unincorporated County areas and residents. Public transportation resources for the County are discussed below in terms of bus service and rail service.

## Bus Service

### *Metropolitan Transit Authority (MTS)*

MTS offers over 85 bus routes throughout its service area, which primarily cover the southern region of the County. Bus services are provided in the unincorporated County by the San Diego Transit Corporation (SDTC), which is owned by MTS. SDTC serves the cities of San Diego, El Cajon, La Mesa, and National City, in addition to the unincorporated communities of Julian, Desert, Central Mountain, Lakeside, Alpine, Mountain Empire, Crest, Valle de Oro, Spring Valley, Sweetwater, and Otay. SDTC bus service provides connections to light and heavy rail services and offers local service and express service (MTS 2008).

### *North County Transit District (NCTD)*

The NCTD operates a bus system referred to as the BREEZE which serves the unincorporated County. The BREEZE serves eight north County cities, in addition to the unincorporated communities of Pendleton/De Luz, Fallbrook, Ramona, Pala/Pauma Valley, Valley Center, North County Metro, and San Dieguito. The NCTD service area also includes four Native American reservations governed by the Mission Band of Rincon Indians, Mission Band of Pala Indians, Pauma and Yuima Band of Mission Indians, and the San Pasqual Band of Diegueno Indians. The BREEZE operates approximately 40 different bus routes, twenty-six bus routes serve the unincorporated County, many of which provide connections to light rail systems and tourist attractions.

### *Tribal Government Transportation*

In recent years, some tribal gaming facilities have started providing transit (primarily passenger buses) for their employees and patrons at locations throughout San Diego County, and occasionally from Orange and Los Angeles Counties. This transit is often provided in the same areas where NCTD or MTS provide transit services.

### *Paratransit*

Both MTS and NCTD offer transit (also known as paratransit) services to passengers with certified disabilities under the American with Disabilities Act (ADA). The MTS paratransit service is referred to as Access/ADA. NCTD paratransit service is referred to as LIFT. Paratransit provides service to the same areas during the same days and hours that other transit routes operate. Access/ADA serves communities in the MTS service area but users must be within ¾ - mile of a bus or trolley stop. LIFT provides service to accommodate the mobility needs of disabled riders within ¾-mile of the NTCD BREEZE route. Communities in the unincorporated area with significant paratransit coverage include Spring Valley, Valle de Oro, Sweetwater,

Lakeside, Ramona, and North County Metro. Other communities such as Crest/Dehesa, Alpine, Valley Center, Pala/Pauma Valley, Bonsall, and Fallbrook have limited paratransit service, while the backcountry communities of Mountain Empire, Central Mountain, Palomar/North Mountain, and Desert/Borrego Springs are not covered.

**Rail Service**

There are five railroad providers that operate on two railroad corridors within the San Diego region. Many of these rail lines are located within the incorporated areas of the County; however, some unincorporated residents utilize these systems. Railroad providers for San Diego County include: 1) NCTD; 2) MTS; 3) Burlington Northern Santa Fe Railroad (BNSF); 4) Carrizo Gorge Railway (CGR); and 5) San Diego and Imperial Valley Railroad (SD&IV). The two railroad corridors that cross the County include: 1) the Los-Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor; and 2) the San Diego & Arizona Eastern (SD&AE) Railway Corridor. These railroad corridors are shown in Figure 2.15-6. Table 2.15-8 provides additional details about the railroad freight and commuter operations on these two corridors.

The LOSSAN rail corridor covers 351 miles, with 82 miles located in San Diego County (62 miles along the coast and 20 miles to the east linking Oceanside to Escondido). The San Diego portions of the corridor are mostly owned by NCTD, with a small southern portion of the line owned by MTS. The majority of the portion of the LOSSAN rail corridor that runs through San Diego County is a single line that is currently operating at maximum capacity. Commuter rail services offered on this corridor include the SPRINTER, COASTER, Metrolink, and Amtrak. These commuter rail services are discussed below. BNSF also maintains a freight easement, which allows them to transport freight shipments on the LOSSAN rail corridor.

The SD&AE Corridor was constructed from 1907 to 1916 as an alternative route to connect San Diego to national railroad lines. The route traverses through Baja California, Mexico, into the County's Mountain Empire Subregion and Imperial County to a connection with the Union Pacific Railroad. Currently, MTS owns 108 miles of rail that comprises the SD&AE railway. SD&IV operates freight services on this line while MTS operates the San Diego Trolley on this line. CGR uses this line for freight operations and a tourist train that operates from Campo to Tecate, Mexico.

***Freight Rail Service***

A freight line, the San Diego & Arizona Eastern Railway's Desert Line, is the primary rail line that traverses the unincorporated County. Existing rail lines, such as the Desert Line, may be underutilized at their current capacities. For these lines to remain economically feasible for continued operation, their usage should be maximized to provide an alternative to trucks, especially on SR-94, whenever feasible. In addition, BNSF is the operator of a freight line that runs from Oceanside to Escondido.

***Passenger Rail Service***

Passenger rail service includes both long distance passengers and regional (Southern California) commuter services as described below.

**Amtrak.** Intercity rail service is provided on the LOSSAN rail corridor by Amtrak. Amtrak is a nationwide provider of passenger rail service. Amtrak operates one route that serves San Diego County, called the Pacific Surfliner. The Pacific Surfliner travels on the Southern California coast

between San Luis Obispo and San Diego. This line offers 12 daily round-trips between San Diego and Los Angeles, and Santa Barbara and San Diego.

**Metrolink.** Metrolink is a regional commuter train system that operates on the LOSSAN rail corridor. Metrolink was formed by the Southern California Regional Rail Authority, composed of members from Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Metrolink operates seven routes and 55 stations over 512 miles of rail. 145 trains are operated on the weekdays with 32-48 trains operating on the weekends. The only Metrolink Station located in the County of San Diego is the Oceanside Station located on the Orange County Line (NCTD 2008).

### *Commuter Rail Service*

In San Diego County commuter rail services are provided by NCTD and MTS, as described below.

**San Diego Trolley.** MTS operates the San Diego Trolley which runs along the SD&AE Railroad Corridor. The San Diego Trolley operates over 53 miles on three routes, mostly double-tracked, with 53 stations. Although the entire Trolley line is located within the incorporated County, many unincorporated residents use its service. In 2007, the San Diego Trolley carried 35.1 million riders. Average weekday ridership is 100,000 to 110,000 riders (MTS 2008).

**SPRINTER.** NCTD operates the SPRINTER Light Rail system between Oceanside and Escondido on a rail line that runs approximately parallel to SR-78. The Buena Creek SPRINTER Station, which opened in 2007, is the only site in the unincorporated County that is served by high frequency light rail transit. The SPRINTER rail line is 22-miles long, has a 53-minute travel time from end to end, and runs 64 trips daily.

**COASTER.** NCTD operates the COASTER rail system on the LOSSAN rail corridor. The COASTER rail service is a commuter rail line that operates from North County San Diego to Downtown San Diego every weekday and on Saturdays. The COASTER operates 22 daily roundtrips trips and eight stations (NCTD 2008).

## Bicycle and Pedestrian Systems

### Bikeways

The San Diego County Bicycle Transportation Plan serves as a guiding document for bicycle facilities development in unincorporated areas. The Plan identifies existing and proposed bikeways for each community. Bikeways can be classified into three types of bicycle facilities: bike path, bike lane, and bike route. Bike paths refer to paths that provide for bicycle travel on a paved right-of-way completely separated from any street or highway. A bike lane provides a striped and stenciled lane for one-way travel on a street or highway. Bike lanes help position cyclists in the roadway, as practicable, but do not preclude vehicular movements such as merging and entering turn lanes. A bike route designates networks for shared use with pedestrian or motor vehicle traffic and is identified only by signage. Bike routes require shared use of road lanes and therefore bicyclists and motorists must interact to safely pass and share lanes. All County roadways (excluding freeways, except where allowed by Caltrans) are open for travel by bicycle, regardless of bikeway treatment.

Existing bikeways, within the unincorporated County are shown by in Figures 2.15-7. Approximately 156 miles of bicycle routes currently exist in the County.

**Pathways**

The County Trails Program (CTP) serves as the guiding document for multi-use trails and pathways throughout the unincorporated County. The Community Trails Master Plan (CTMP) is the implementing document for the CTP. The CTP encompasses both regional and community facilities. Regional facilities span long linear distances that cross multiple communities and function as a backbone for local trail networks. Community facilities serve local needs and are contained in the CTMP, an independent planning document. Regional and community facilities are further separated into the classification of trails and pathways. Trails are typically located away from vehicular roads, are primarily recreational in nature but can also serve as an alternative mode of transportation. They are soft-surface facilities for single or multiple uses by pedestrians, equestrians, and mountain bicyclists. Trail characteristics vary depending on location and user type. Pathways are facilities located within a parkway or road right-of-way. A riding and hiking trail located in the road right-of-way is considered a pathway. They are typically soft-surfaced facilities intended to serve both circulation and recreation purposes. Pathways help make critical connections and are an integral part of a functional trail system.

Existing community and regional trails are shown in Figure 2.15-7. Approximately 121 miles of trails exist in the County. Regional pedestrian pathways are primarily located in the Pendleton/De Luz, Jamul/Dulzura, Otay, Central Mountain, Alpine, and North Mountain communities of the unincorporated area. The only existing community pedestrian pathways are located in Jamul/Dulzura, Sweetwater, and Central Mountain. An inventory of existing sidewalk facilities for the unincorporated County is not available.

**Rural Road Safety**

Large portions of the unincorporated County are rural in nature. The National Center for Injury Prevention and Control (County of San Diego 2007a) has estimated that over 58 percent of motor vehicle crashes that take place in the U.S. occur in rural areas. Additionally, the rural fatality rate per 100 million VMT is more than twice that of urban areas. In the U.S., 79 percent of all crashes on rural roads fall into three categories. These categories include the following: 1) single vehicle crashes (especially running off the road); 2) head-on collisions; and 3) collisions at intersections. Single vehicle crashes constitute 46 percent or more of all fatal rural road crashes. Head-on crashes make up approximately 18 percent of all fatal crashes on rural roads. Collisions at intersections make up approximately 15 percent of all crashes on rural roads.

This higher fatality rate in rural areas could be attributed to many factors including rugged terrain, shortened sightlines, road geometry, faster speeds, functionality, alcohol, enforcement levels, longer response times to accidents, and distance to medical treatment centers. Many older rural roads in the unincorporated County were established under a previous set of design standards. In many instances, these roads have segments with horizontal and vertical curves that are sharper than allowed by existing standards. Therefore, rural road safety is a concern for the County.

### *2.15.1.2 Adjacent Cities*

**Roadways and Traffic**

As part of the EIR process for the proposed General Plan Update, a study identifying the potential for the proposed General Plan Update to result in traffic impacts to adjacent jurisdictions was conducted by Wilson and Company (2009b). As discussed above, this report addresses potential traffic impacts related to the proposed project and the following cities: Carlsbad, Chula Vista, Del Mar, El Cajon, Encinitas, Escondido, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Marcos, San Diego, Santee, Solana Beach, and Vista. The General Plan Update Traffic Impacts to Adjacent City Jurisdictions report is provided in Appendix H.

**LOS Definitions**

As described in Section 2.15.1.1, Unincorporated County, Table 2.15-1 describes generalized definitions of the various LOS categories (A through F) as applied to adjacent cities roadway operations.

**Roadway Segment Level of Service Standards and Thresholds**

Roadway segment LOS standards and thresholds provide the basis for analysis of adjacent cities arterial roadway segment performance. The analysis of roadway segment LOS was based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast ADT volumes. Methodologies for determining roadway LOS vary among the 16 cities included in the Traffic Impacts to Adjacent City Jurisdictions report. The Cities of Carlsbad, Del Mar, El Cajon, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and Solana Beach utilize the San Diego Traffic Engineering Council/Institution of Transportation Engineers (SANTEC/ITE) guidelines, as shown in Table 2.15-9, for classification of Mobility Element roadways (respective to each cities' existing general plan) and determination of roadway LOS. Tables 2.15-10 through 2.15-15 identify the roadway segment LOS standards and thresholds for the remaining Cities including Chula Vista, Encinitas, Escondido, Oceanside, San Marcos, and Vista, respectively, as defined by each city.

**Roadway Performance**

Existing LOS conditions were estimated based on a base year 2007 traffic forecast. Table 2.15-16 provides a summary of existing roadway classifications, roadway capacity at LOS E, daily ADT and existing LOS based upon the respective jurisdictional standard. One hundred and ninety-six (196) segments were evaluated based on requests made by adjacent cities during the NOP process for the General Plan Update and an evaluation of relevant facilities contained in the RTP (SANDAG 2007). In total, the Traffic Impacts to Adjacent City Jurisdictions report evaluated nine roadway segments in Carlsbad, 13 roadway segments in Chula Vista, one roadway segment in Del Mar, 31 roadway segments in El Cajon, 7 roadway segments in Encinitas, 35 roadway segments in Escondido, 14 roadway segments in La Mesa, two roadway segments in Lemon Grove, five roadway segments in National City, five roadway segments in Oceanside, 21 roadway segments in Poway, 11 roadway segments in San Diego, 11 roadway segments in San Marcos, 14 roadway segments in Santee, 13 roadway segments in Solana Beach, and three roadway segments in Vista. These roadway segments are shown in Table

2.15-16. Segment classifications for these roadways were based on the respective jurisdictional standard, as shown in Tables 2.15-9 through 2.15-15 and discussed above. Generally, the roadway segments included in the analysis of adjacent cities ranged in classification from 2-lane collectors to 6-lane prime arterials.

As shown in Table 2.15-16, a total of 56 roadway segments are currently operating at an unacceptable LOS. Under existing conditions, Carlsbad has zero deficient roadway segments, Chula Vista has six deficient roadway segments, Del Mar has zero deficient roadway segments, El Cajon has seven deficient roadway segments, Encinitas has two deficient roadway segments, Escondido has 14 deficient roadway segments, La Mesa has nine deficient roadway segments, Lemon Grove has one deficient roadway segment, National City has zero deficient roadways, Poway has seven deficient roadway segments, San Diego has three deficient roadway segments, San Marcos has one deficient roadway segment, Santee has three deficient roadway segments, Solana Beach has two deficient roadway segments, and Vista has one deficient roadway segment. Cities with the greatest number of failing roadway segments include Escondido, La Mesa, El Cajon, Poway, and Chula Vista.

**Interregional and International Border Crossings**

San Diego County is bordered by Orange County, Riverside County, Imperial County, and the Republic of Mexico. Orange County traffic travels along I-5 through USMC Camp Pendleton to the coastal cities. Riverside County traffic travels along the I-15 into the Rainbow CPA. Imperial County traffic travels along the I-8 through the Mountain Empire Subregion. Traffic from the Republic of Mexico to the south utilizes three international border crossings within the County: 1) San Ysidro, south of where I-5 and I-805 merge; 2) Otay Mesa, at SR-905; and 3) Tecate, at SR-188. The Tecate border crossing is the only international border crossing that enters directly into the unincorporated County. Table 2.15-17 shows current and projected average daily trips for interregional and international border crossings in the County. Major interregional and international border crossings that occur in the unincorporated County are shown in Figure 2.15-1, 2.15-2, and 2.15-3.

## 2.15.2 Regulatory Framework

### *2.15.2.1 Federal*

**Americans with Disabilities Act (ADA)**

The ADA (1990) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. Pedestrian facility design must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines (Sections 4.3, 4.7 and 4.8) can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states, “When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path.” Certain facilities, such as historic buildings, may be exempt from ADA requirements.

**Highway Capacity Manual**

The Highway Capacity Manual 2000 (HCM 2000), prepared by the federal Transportation Research Board (TRB), is the result of a collaborative multiagency effort between the TRB, FHWA, and American Association of State Highway and Transportation Officials (AASHTO). The HCM 2000 contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including freeways, signalized and unsignalized intersections, rural highways, and the effects of transit, pedestrians, and bicycles on the performance of these systems.

**Title 23, Code of Federal Regulations**

Revised in April 1, 2005, Section 450.220 of Title 23 Highways in the Code of Federal Regulations requires each state to carry out a continuing, comprehensive, and intermodal statewide transportation planning process. This planning process must include the development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economic movement of people and goods in all areas of the state.

**Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

On August 10, 2005 SAFETEA-LU was signed into law. SAFETEA-LU addresses the many challenges facing transportation systems and sets funding and programs to improve safety, reduce traffic congestion, improve efficiency in freight movement, increase intermodal connectivity, and protect the environment. SAFETEA-LU promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

### *2.15.2.2 State*

**California Department of Transportation (Caltrans) Standards**

Caltrans is responsible for planning, designing, building, operating, and maintaining California's $300 billion, 50,000-lane-mile State road system. Caltrans sets standards, policies, and strategic plans that aim to do the following: 1) provide the safest transportation system in the nation for users and workers; 2) maximize transportation system performance and accessibility; 3) efficiently deliver quality transportation projects and services; 4) preserve and enhance California's resources and assets; and 5) promote quality service. Caltrans has the discretionary authority to issue special permits for the use of California State highways for other than normal transportation purposes. Caltrans also reviews all requests from utility companies, developers, volunteers, nonprofit organizations, and others desiring to conduct various activities within the California Highway right of way. The Caltrans Highway Design Manual, prepared by the Office of Geometric Design Standards (Caltrans 2008), establishes uniform policies and procedures to carry out the highway design functions of Caltrans. Caltrans has also prepared a Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Objectives for the preparation of this guide include providing consistency and uniformity in the identification of traffic impacts generated by local land use proposals.

**Statewide Transportation Improvement Program (STIP)**

The California 2007 STIP, approved by the U.S. Department of Transportation in October 2006, is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Title 23 of the Federal Code of Regulations. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations (MPOs) and the Regional Transportation Planning Agencies. In San Diego County, the MPO and Regional Transportation Planning Agency is the SANDAG. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the U.S. Code, including federally funded projects.

**Transportation Development Act (TDA)**

The TDA provides two major sources of funding for public transportation: the Local Transportation Fund (LTF) and the State Transit Assistance (STA) Fund. These funds are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales, and transit performance. Some counties have the option of using LTF for local streets and roads projects, if they can show there are no unmet transit needs. The branch provides oversight of the public hearing process used to identify unmet transit needs. It provides interpretation of and initiates changes or additions to legislation and regulations concerning all aspects of the TDA. It also provides training and documentation regarding TDA statutes and regulations. Caltrans ensures local planning agencies complete performance audits required for participation in the TDA.

### *2.15.2.3 Local*

**Community Plans**

Some community plans identify pedestrian and bicycle policies that affect future development. In addition, various master plans, design guidelines, and specific plans may require pedestrian or bicycle facilities. For example, the Ramona Road Master Plan identifies specific areas where sidewalks should be provided and safe walking zones within ½-mile of schools. The Ramona Road Master Plan also recommends specific improvements to bicycle facilities providing access to schools.

**County Zoning Ordinance, Parking Regulations, Sections 6750- 6799**

The County's Zoning Ordinance sets the standards for parking including requirements for new uses and structures; existing uses and structures; conversion, alterations, or expansion of existing uses or structures; computation of vehicle and bicycle space requirements; location of parking to building sites; parking space dimensions; design of bicycle storage; design standards for off-street parking; loading spaces; variances from parking regulations; and parking of commercial vehicles in residential, agricultural, and certain special purpose zones. The County of San Diego Off-Street Parking Design Manual implements Section 6793(c) of the County Zoning Ordinance. This section of the Ordinance relates to the design, dimensions, construction, landscaping, and surfacing of parking and bicycle spaces, and driveways.

**San Diego County Public Road Standards**

These standards provide design and construction requirements for public road improvement projects located within the unincorporated areas of San Diego County. These standards apply to County initiated public road improvement projects as well as privately initiated public road improvement projects. These standards provide minimum design and construction requirements for public roads.

**San Diego County Private Road Standards**

These standards provide minimum design and construction requirements for private road improvements required as conditions of land development approval in unincorporated areas of the County. Levels of service are not established for private roads. Minimum design and construction requirements, however, are established based upon the projected ADT volume on the road.

**County of San Diego Consolidated Fire Code (CFC)**

The County of San Diego, in collaboration with the local fire protection districts, created the CFC in 2001. The CFC contains the County's and fire protection districts' amendments to the California Fire Code. Emergency ingress/egress is established by County's CFC. Ingress/egress is necessary for both citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Section 902.2 of the CFC dictates minimum design standards for "Fire Apparatus Access Roads" and includes minimum road standards, secondary access requirements, and restrictions for gated communities. Road standard requirements for emergency vehicles specify a minimum 12-foot paved lane or 24-foot travel-way.

**County of San Diego Regulatory Ordinances, Sections 77.201 – 77.220, Transportation Impact Fee (TIF)**

The San Diego County TIF Ordinance, as amended in February 2008, requires the assessment and collection of fees for roadway impacts as a condition of approval of a subdivision map or prior to issuance of a development permit, including a building permit. The County TIF Ordinance defrays the actual or estimated costs of constructing planned transportation facilities necessary to accommodate increased traffic generated by future development consistent with Section 66000 et seq. of the California Government Code (Mitigation Fee Act). Application of this fee includes, but is not limited to, development for residential, commercial, and industrial land uses. The fees are collected to fund identified transportation facilities, or portions thereof, that provide increased road capacity necessitated by the cumulative impacts of future development.

**County Community Right-of-Way Development Standards**

Board Policy J-36, adopted December 1989, provides a procedure by which communities can deviate from the established County Public Road Standards, and replace or augment them with standards tailored to their community. The Community Right-of Way Development Standards provide alternative right-of-way regulatory standards within the road right-of-way that supersede the County Public Road Standards. The purpose of these Standards is to ensure that the road right-of-way is designed to better enhance and retain the character of individual communities

while maintaining the safety of the roadway. Community Right-of-Way Development Standards have been prepared for the communities of Borrego Springs, Fallbrook, Julian, and San Dieguito.

## Regional Transportation Plans and Programs

SANDAG serves as the forum for decision-making on regional issues such as growth, transportation, land use, the economy, the environment, and criminal justice. SANDAG builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life. SANDAG is governed by a Board of Directors composed of mayors, council members, and supervisors from each of the San Diego region's 19 local governments.

As the San Diego County MPO and Regional Transportation Planning Agency, SANDAG has produced the following documents that identify transportation plans and policies in the San Diego area.

### 2030 Regional Transportation Plan (RTP)

Changes in anticipated cost and revenue have resulted in an update of the 2030 RTP that was approved by the SANDAG Board of Directors in 2006. The 2030 RTP, also known as 2030 RTP: Pathways for the Future, was adopted in November 2007 and serves as a blueprint to address the mobility challenges created by the San Diego region's growing population and employment. It incorporated a new regional growth forecast and contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the region.

### 2006 Regional Transportation Improvement Program (RTIP)

The RTIP is a multi-year program of proposed major highway, arterial, transit, and bikeway projects. The 2006 RTIP is a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of efforts to attain federal and State air quality standards for the region. The 2006 RTIP also incrementally implements the latest update to the RTP. The 2006 RTIP covers fiscal years 2007 to 2011. The 2006 RTIP, including an air quality emissions analysis for all regionally significant projects, was adopted on August 4, 2006.

### Congestion Management Program (CMP)

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a CMP, which is a part of SANDAG's RTP. The purpose of the CMP is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. The San Diego region has elected to be exempt from the State CMP and, as a result, the County Board of Supervisors adopted a resolution electing to be exempt from the State CMP. Existing CMP monitoring, threshold levels, guidelines and mitigation strategies will be incorporated into other SANDAG plans and/or programs as a result.

## 2.15.3 Analysis of Project Impacts and Determination of Significance

### *2.15.3.1 Issue 1: Unincorporated County Traffic and LOS Standards*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update would have a significant impact if it would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections); or

b. Exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways.

**Impact Analysis**

This impact analysis provides a comparative assessment of travel demand, specifically the magnitude in terms of vehicle trip generation and VMT under the land uses and roadway network (ME) identified for the proposed General Plan Update. The following section provides information for unincorporated County traffic, LOS standards, and associated impacts. The discussion is divided into nine sections, including: 1) methodology behind the County of San Diego General Plan Update Traffic and Circulation Assessment (Wilson and Company 2009a); 2) proposed project roadway network; 3) proposed project roadway capacity and LOS standards; 4) proposed project projected trip generation; 5) proposed project projected VMT; 6) proposed project related traffic impacts; 7) existing federal, State and local regulations and existing regulatory processes; 8) proposed General Plan Update goals and policies; and 9) summary. Information on adjacent cities traffic, LOS standards, and associated impacts is discussed below in Section 2.15.3.2, Issue 2: Adjacent Cities Traffic and LOS Standards.

**Methodology of Traffic and Circulation Assessment**

As part of the EIR process for the proposed General Plan Update, a Traffic and Circulation Assessment (Wilson and Company 2009a), was conducted to provide a program-level assessment of traffic operations throughout the unincorporated County of San Diego. This assessment evaluated projected roadway network performance under implementation of the proposed General Plan Update and was performed in accordance with the requirements of the County of San Diego, the SANDAG Regional CMP, and the CEQA project review process. The complete Traffic and Circulation Assessment is included in Appendix G of this EIR. Additionally, Chapter 4.0, Project Alternatives, compares proposed project traffic and LOS information to the project alternatives, including the No Project Alternative.

The Traffic and Circulation Assessment had an extremely large study area encompassing the unincorporated portions of the County of San Diego. In order to provide a program-level analysis of the project area, traffic operations were evaluated by consideration of daily roadway

segment operations rather than peak hour intersection operations. The evaluation of peak hour intersection operations would be appropriate for addressing specific transportation corridors (i.e., intersections) that may be impacted by a proposed project. This approach is not feasible for the proposed project, due to its size. Therefore, daily roadway segment operations were evaluated to provide a comprehensive review of the County's roadway facilities. Two sets of roadway segment LOS standards and thresholds were utilized for the roadway analysis in this study. The existing County of San Diego LOS standards and thresholds were used to evaluate existing conditions while the proposed General Plan Update Mobility Element LOS standards and threshold were used to evaluate future conditions. Compared to existing standards, the proposed General Plan Update includes additional roadway classifications and provides variations to existing road classifications that would result in a change in the overall road capacity of several Mobility Element roads. Therefore, the current roadway segment capacity was used for the analysis of existing conditions, while the proposed General Plan Update roadway segment capacity was used for the analysis of the proposed project under build-out conditions. Within this EIR, the term build-out refers to a scenario in which the proposed General Plan Update land uses and the proposed General Plan Update Mobility Element roadway network have been fully developed within reason while accounting for developable land and constraints. The scenario is based on the population forecast model, described in Section 1.13, Project Description, and correlates with SANDAG's 2030 forecast for the unincorporated County. Therefore, based on the assumptions programmed within the SANDAG forecast model, it is reasonable to conclude that build-out of the General Plan Update would occur around the 2030 timeframe.

County staff worked with SANDAG staff to prepare traffic forecasts for the Base Year 2007 and the future land use and roadway networks for the proposed General Plan Update. The traffic modeling process utilized the SANDAG Series 10 Regional Forecast model, with the assumption of full build-out of the General Plan Update land use map of the County's unincorporated land by 2030. The larger, more general Series 10 regional Traffic Analysis Zones (TAZs) were subdivided into smaller units/zones in the unincorporated area in order to ensure the accuracy and validity of the traffic forecasts. Detailed information on roadway network and land use assumptions that were incorporated into the traffic forecast model for this assessment are provided in Appendix G, Traffic and Circulation Assessment.

**Proposed General Plan Update Roadway Network**

The Mobility Element within the proposed General Plan Update incorporates road types that are compatible with proposed General Plan Update land uses. This roadway network, referred to as the ME road network, includes County maintained roads as shown on the Mobility Element map. The Mobility Element roadway network for the proposed General Plan Update is the Board of Supervisors endorsed roadway network. Mobility Element roads provide for the movement of people and goods between and within communities in the County. Upon adoption of the General Plan Update, any proposed deviations from the proposed Mobility Element road network would require a general plan amendment.

Table 2.15-18 displays lane miles proposed under the General Plan Update by facility type (State highways, Mobility Element roads, and local public roads), as well as by community. Implementation of the proposed General Plan Update would result in a roadway network that has 614 lane miles of State highway, 2,407 lane miles of County Mobility Element roads, and 703 lane miles of local public roads, for a total of 3,724 roadway lane miles. Roadway lane miles proposed under the General Plan Update would generally be evenly distributed between

the northwestern communities (1,169 lane miles) southwestern communities (1,308 lane miles), and eastern communities (1,247 lane miles).

Compared to existing conditions (see Table 2.15-5), the proposed project would increase State highways by 160 lane miles, County Mobility Element roads by 214 lane miles, and local public roads by 288 lane miles, for a total of 662 additional roadway lane miles. When comparing the proposed General Plan Update roadway network to existing conditions, the northwestern communities would experience an increase of 285 lane miles, southwestern communities would experience and increase of 243 lane miles, and eastern communities would experience an increase of 134 lane miles. Planning areas that would experience the greatest increase in number of roadway lane miles from implementation of the proposed General Plan Update, when compared to existing conditions, include: North County Metro Subregion (78 lane miles), Lakeside CPA (68 lane miles), Valley Center CPA (57 lane miles), and Fallbrook CPA (50 lane miles).

**Proposed Roadway Segment Capacity and LOS Standards**

Implementation of the proposed General Plan Update would implement new standards for determining County roadway capacity and LOS. Table 2.15-19 presents the roadway segment capacity and LOS standards that would occur under implementation of the General Plan Update. Compared to existing standards, these include a wider range of roadway facility types and would allow for more flexibility in providing roadway classifications compatible with local conditions. The standards listed in Table 2.15-19 were used in the analysis of project-related traffic impacts. LOS D was considered the minimum acceptable LOS for County roadway segments per the County of San Diego Guidelines for Determining Significance, Transportation and Traffic (DPLU 2007p).

**Projected Trip Generation**

Trip generation quantifies the magnitude of vehicle trips as a function of the type and scale of the land uses associated with the proposed General Plan Update. Table 2.15-7 displays forecasted ADT in the unincorporated County under implementation of the General Plan Update. Trip generation is shown for the build-out of the proposed project. The proposed General Plan Update would result in the following ADT generation: northwestern communities (1,843,126 ADT), southwestern communities (2,821,654 ADT) and eastern communities (572,625 ADT). Under the proposed General Plan Update, planning areas that would experience the highest ADT include Lakeside CPA (583,180 ADT), Fallbrook CPA (459,754 ADT), Ramona CPA (445,737 ADT), Spring Valley CPA (415,986 ADT), and Valle de Oro CPA (406,282 ADT).

The proposed project would generate approximately 2,094,554 additional ADT as compared to the existing condition (see Table 2.15-7). The proposed project would result in a total of 5,237,405 ADT while under the existing condition the ADT is 3,142,851. Implementation of the proposed project would result in a 66 percent increase in ADT as compared to the existing condition of the unincorporated County.

**Projected Vehicle Miles of Travel (VMT)**

VMT is an indicator of the overall magnitude of travel associated with land uses and the roadway network. VMT is a measurement of the total miles traveled by all motor vehicles in the

area for a specified time period. In general, a mix of land uses within close proximity to one another and requiring less driving distance can result in a reduction in VMT. Typically more dispersed and segregated land uses result in greater VMT. VMT data used to evaluate existing conditions and the proposed project was based upon information provided by SANDAG that was derived from the GP Update traffic forecast model. Table 2.15-7 identifies daily VMT for the proposed General Plan Update. Any analysis of this data also needs to consider the associated population, which directly impacts the number of vehicles and vehicle trips. When compared to the existing VMT of 15,922,149, the proposed project would result in 9,448,742 additional VMT, which is approximately a 60 percent increase in VMT as compared to the existing condition.

A discussion regarding the proposed General Plan Update and the potential for greenhouse gases associated with VMTs to contribute to global climate change is provided in Issue 1: Compliance with AB 32, within Section 2.17, Global Climate Change.

**Project-Related Traffic Impacts**

The following discussion summarizes the project-related traffic impacts as determined in the County of San Diego General Plan Update Traffic and Circulation Assessment (Wilson and Company 2009a). The discussion is divided into three project-related traffic impacts including: 1) projected roadway network performance; 2) comparison of existing conditions to the proposed project; and 3) deficient facilities.

***Projected Roadway Network Performance***

Table 2.15-20 displays projected performance results for the roadway network proposed under the General Plan Update. Facilities operating at LOS E and F are considered to be deficient facilities and would be subject to mitigation. Implementation of proposed project would result in approximately 253 lane miles within the unincorporated County operating at an unacceptable LOS E or F. A total of 125 roadway lane miles (approximately 23 lane miles of State highways and 102 lane miles of Mobility Element roads) would operate at LOS E. Planning areas that would experience the greatest number of LOS E roadway lane miles include: Fallbrook CPA (23 lane miles), Lakeside CPA (11 lane miles), San Dieguito CPA (11 lane miles), and Valle de Oro CPA (10 lane miles).

A total of 128 roadway lane miles (45 lane miles of State highway and 83 lane miles of Mobility Element roads) are projected to operate at LOS F under the proposed General Plan Update. Communities that would experience the greatest number of LOS F roadway lane miles include San Dieguito CPA (24 lane miles), Lakeside CPA (20 lane miles), Valley Center CPA (14 lane miles) and Jamul/Dulzura Subregion (14 lane miles). Approximately 50 percent of the total deficient roadway lane miles would be located in the northwestern communities, with less than 10 percent located in the eastern communities.

With implementation of the proposed General Plan Update, a total of approximately 253 lane miles in the unincorporated County would exceed a LOS standard established by the County Congestion Management Agency for designated roads or highways (see Table 2.15-20).

***Comparison of Existing Conditions to Proposed Project Impacts***

Compared to the existing conditions of the County (see Table 2.15-6), implementation of the proposed General Plan Update would reduce existing deficient lane miles (State highways and Mobility Element roads operating at LOS E and F) in the unincorporated County by 75 miles.

Implementation of the proposed General Plan Update would increase roadway lane miles operating at LOS E in some planning areas, such as the Alpine and Fallbrook CPAs, while decreasing roadway lane miles operating at LOS E in other planning areas, such as the North County Metro Subregion and Lakeside CPA. Additionally, under existing conditions, the majority of existing LOS E roadway segments are generally distributed in the northwestern (69 total lane miles) and southwestern (83 total lane miles) communities, while zero LOS E roadway segments occur in the eastern communities. Under implementation of the proposed General Plan Update, the majority of LOS E roadway segments would be distributed in the northwestern communities (66 total lane miles) and southwestern communities (50 total lane miles), with 9 miles of LOS E roadway segments occurring in the eastern communities. Implementation of the proposed General Plan Update would increase total LOS E roadway lane miles in the eastern communities by 9 total miles while decreasing total LOS E roadway lane miles in the southwestern communities by 33 lane miles and in the northwestern communities by 3 total lane miles. Compared to existing conditions, total roadway miles operating at LOS E would decrease by 27 lane miles under implementation of the proposed General Plan Update.

When compared to existing conditions, implementation of the proposed General Plan Update would increase roadway lane miles operating at LOS F in some planning areas such as the Jamul/Dulzura and Mountain Empire Subregions, while decreasing roadway lane miles in other planning areas such as the Lakeside and Valle de Oro CPA. Under existing conditions, LOS F roadway segments are generally distributed evenly throughout the northwestern (78 total lane miles) and southwestern communities (90 total lane miles), while no LOS F roadway segments occur in the eastern communities. Under implementation of the proposed General Plan Update, the majority of LOS F roadway segments would generally be distributed between the northwestern communities (63 total lane miles) and southwestern communities (55 total lane miles) areas, while 10 total miles of LOS F roadway segments would to occur in the eastern communities. When compared to existing conditions, implementation of the proposed General Plan Update would decrease total LOS F roadway lane miles in the northwestern communities by 15 lane miles and in the southwestern communities by 35 lane miles, while increasing total LOS F roadway lane miles in the eastern communities by 10 lane miles. Compared to existing conditions, total roadway miles operating at LOS F would decrease by 40 lane miles under implementation of the proposed General Plan Update.

### *Deficient Facilities*

Table 2.15-21 identifies the LOS E and F roadway segments that would occur under the proposed General Plan Update. Implementation of the proposed General Plan Update is anticipated to result in a total of 136 deficient roadway segments throughout the unincorporated County (including approximately 31 State highway segments and 105 ME segments). The 136 deficient roadway segments result in a total of 253 deficient lane miles since roadway segments often consist of multiple lanes. This table also identifies the proposed ADT and LOS under the General Plan Update, the roadway classification under which the segment is failing, and an alternate roadway classification under which the segment would operate acceptably. The roadway classification represents the classification proposed in the General Plan Update, and the alternate roadway classification represents the classification which would be required to accommodate the identified deficiency in LOS.

### *Regional Roadway Facilities*

Regional roadway facilities within the unincorporated County are provided in the current regional roadway planning document for SANDAG, the 2030 Regional Transportation Plan: Pathways for

the Future (2030 RTP). Within the unincorporated County the major regional roadway facilities include SR-54, SR-67, SR-76, SR-78, SR-79, SR-94, SR-188, I-8 and I-15. To evaluate the potential impacts of the proposed General Plan Update on regional roadway facilities listed previously, which are not under the jurisdiction of the County but located within the unincorporated County, this document hereby incorporates by reference the Environmental Impact Report for the 2030 San Diego Regional Transportation Plan: Pathways for the Future Environmental Impact Report (2030 RTP EIR), dated November 2007 (SCH No. 2007051145). This document can be found on SANDAG's website at: www.sandag.org and is summarized below.

The 2030 RTP provides the planning foundation for transportation improvements throughout the San Diego region through the year 2030. The 2030 RTP describes plan-level transportation improvements that includes a variety of facilities such as new and widened freeways, new transit features, expanded High Occupancy Vehicle (HOV)/Managed Lanes opportunities, and regional bikeway corridors. Improvements to the region's highway and roadway network are focused on flexible lanes dedicated to carpools and new, high-quality regional bus rapid transit service. The 2030 RTP also includes facilities to improve goods movement throughout the region. The regional highway network in the 2030 RTP includes all roads classified by local jurisdictions in their circulation elements, as well as freeways, expressways, and the Regional Arterial System (RAS). The RAS consists of all state highways, prime arterials, and selected major streets. In addition, some residential streets are included in the networks for connectivity between traffic assignment zones.

The 2030 RTP provides plans for a comprehensively improved and expanded highway, transit, and arterial network, balanced with multiple travel and mode choices for the public. Within Section 4.4 of the 2030 RTP EIR, it was determined that while there would be more people and cars in the future, implementation of the 2030 RTP would result in a less congested roadway system and a more accessible transit system than the one available under existing conditions. This conclusion is based on an increase in capacity of the existing roadway network, as well as transit options. In addition to other performance measures, impacts were evaluated based upon a comparison of peak period freeway congestion, the percent of work/education trips accessible in 30 minutes, and the percent of non-work trips accessible within 15 minutes.

The 2030 RTP EIR analyzed the potential environmental impacts related to the adoption and implementation of the 2030 RTP, which includes the regional roadway facilities listed above. The traffic impact analysis contained in the 2030 RTP EIR evaluated potential impacts associated with these regional roadway facilities, while accounting for the planning efforts of local governments, including the proposed General Plan Update. Section 4.1.3 of the 2030 RTP EIR specifically acknowledges the County of San Diego General Plan Update process as a component in the evaluation of the 2030 RTP. Key characteristics of the proposed General Plan Update are described in the RTP EIR, including the proposed location of approximately 80 percent of future unincorporated County of San Diego population growth in communities located within the San Diego County Water Authority jurisdiction.

The 2030 RTP EIR determined that impacts to regional traffic and circulation patterns under the 2030 RTP, which includes growth projections representative of those proposed in the General Plan Update, would be less than significant. The 2030 RTP EIR determined that upon build-out of the 2030 RTP, there would be a projected two percent decrease in congested peak period travel conditions on freeway facilities. This determination was based upon the comparison of the congested peak period freeway travel conditions in 2006 (32 percent) to congested peak

period freeway travel conditions in 2030 (30 percent) under implementation of the 2030 RTP. Additionally, the 2030 RTP EIR compared the existing transportation system LOS to year 2030 RTP LOS and concluded that certain freeway segments would operate at improved levels as compared to existing conditions. Therefore, the 2030 RTP EIR concludes that implementation of the proposed 2030 RTP would not result in a significant impact to freeway facilities and mitigation is not required.

The growth projections used in the 2030 RTP EIR were based on SANDAG's 2030 Regional Growth Forecast Update. SANDAG's 2030 Regional Growth Forecast Update uses long-range forecasts of population, housing, employment, income, and land use. This forecast is similar to that used for the proposed project. Therefore, the proposed project would result in similar impacts to the regional roadway network in the County as identified in the RTP EIR.

**Existing Federal, State, and Local Regulations and Existing Regulatory Processes**

Multiple federal regulations exist to ensure transportation facilities are operationally adequate within the County. Future development of roadways under the General Plan Update would be required to comply with the HCM 2000, which contains capacity and quality of service standards for various highway facilities, including freeways, signalized and unsignalized intersections, and rural highways. Additionally, future development of roadways would be required to comply with Title 23, Highways, in the Code of Federal Regulations, which regulates the development of statewide transportation plans.

The proposed General Plan Update would also be required to comply with Caltrans standards, which establish uniform policies and procedures to carry out the highway design functions of Caltrans. Proposed roadways would also be required to be consistent with the 2030 RTP, the regional planning document that contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the region. Other regional transportation plans that the proposed General Plan Update would be required to follow include the 2006 RTIP, a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of efforts to attain federal and State air quality standards for the region, and the plans and/or programs developed by SANDAG to incorporate the monitoring, threshold levels, guidelines and mitigation strategies that address requirements of State Proposition 111.

Any roadways proposed under the General Plan Update would also be required to comply with existing County roadway standards, such as the San Diego County Public Road Standards, which provide design and construction requirements for public road improvement projects located within the unincorporated areas of San Diego County, and the County TIF Program, which requires residential, commercial, and industrial projects to a pay fee that defrays the costs of constructing planned transportation facilities necessary to accommodate increased traffic generated by future development.

In addition, any future discretionary development would be required to conduct environmental review pursuant to CEQA prior to approval. To adhere to CEQA statutes and guidelines, the County's Guidelines for Determining Significance, Transportation and Traffic are used to evaluate and mitigate project-level and cumulative impacts.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that would prevent the substantial deterioration of transportation resources within the unincorporated County. Within the Land Use Element, and Mobility Element, various goals include specific policies to prevent the proposed General Plan Update roadway network from increasing in traffic or exceeding LOS standards.

In the Land Use Element, Goal LU-5 pertains to Climate Change and Land Use and encourages a land use plan and associated development techniques and patterns that reduce emissions of local greenhouse gases in accordance with state initiatives, while promoting public health. Policy LU-5.1 supports this goal by encouraging the reduction of vehicle trips within communities, which would reduce project-related traffic impacts. Goal LU-10 focuses on semi-rural and rural lands that buffer communities, protect natural resources, foster agriculture, and accommodate unique rural communities. LU-10.4 supports this goal by limiting the establishment of commercial and industrial uses in semi-rural and rural areas that are outside of villages (including rural villages) to minimize vehicle trips and environmental impacts. Goal LU-11 encourages commercial, office, and industrial development that is appropriately sited and designed to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths. Policy LU-11.8 supports this goal by encouraging permitted secondary land uses that would reduce the frequency of employee automobile trips. Goal LU-12 would promote sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development. Policy LU-12.2 supports this goal by requiring development to mitigate the significant impacts to existing service levels of public facilities or services for existing residents and businesses. This policy would reduce traffic-related impacts associated with deteriorated roadway LOS.

In the Mobility Element, Goal M-1 encourages a safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities. Policies M-1.1, M-1.2, and M-1.3 support this goal by prioritizing travel within communities, providing an interconnected public road network, and encouraging flexibility in design. Policies in support of Goal M-1 would reduce proposed project related impacts such as congestion and LOS deterioration. Goal M-2 encourages a road network that provides adequate capacity to reasonably accommodate both planned land uses and regional traffic patterns, while supporting other General Plan goals such as providing environmental protections and enhancing community character. Policies M-2.1, M-2.2, and M-2.3, support this goal by establishing LOS criteria, improving traffic operations, and requiring environmentally sensitive road design. Goal M-3 promotes new or expanded transportation facilities that are phased with and equitably funded by the development that necessitates their construction. Policies M-3.1 and M-3.2 support this goal by requiring development reserve right-of-way for public roads and requiring development contribute its fair share toward financing transportation facilities. Goal M-4 promotes roads designed safe for all users and compatible with their context. Policy M-4.2 support this goal by providing interconnected local roads and reinforcing compact development patterns. Compact development patterns would encourage alternative transportation and reduce vehicle trips and traffic.

Goal M-5 encourages a multi-modal transportation system that provides for the safe, accessible, convenient, and efficient movement of people and goods within the unincorporated County. Policies M-5.1 and M-5.2 support this goal by requiring coordination with regional planning and transit agencies in order to provide a transportation network with sufficient capacity, connectivity and reduced impacts to adjacent communities. Goal M-9 promotes the effective use of the

existing transportation network by reducing the need to widen roads through and maximizing the use of alternative modes of travel throughout the County. Policies M-9.1 and M-9.2 support this goal by focusing on transportation systems management and transportation demand management. These policies seek to maximize the efficiency of existing or improved road facilities while promoting alternative transportation methods which would reduce vehicle trips on the proposed roadway network.

**Summary**

Implementation of the proposed General Plan Update would result in a total of 136 deficient roadway segments throughout the unincorporated County. The 136 deficient roadway segments would result in a total of 253 deficient lane miles since roadway segments often consist of multiple lanes. Therefore, although it is an improvement over existing conditions, a total of 253 roadway lane miles would exceed the LOS standard established by the County. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to improve unincorporated traffic conditions, specific measures that implement these policies and regulations are proposed to ensure that the intended improvements are achieved. Therefore, the proposed project would result in a potentially significant impact to unincorporated traffic and LOS levels and specific implementation programs are identified as mitigation.

### *2.15.3.2 Issue 2: Adjacent Cities Traffic and LOS Standards*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update would have a significant impact if it would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections); or

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

**Impact Analysis**

This impact analysis summarizes the results of the County of San Diego General Plan Update Traffic Impacts to Adjacent City Jurisdictions report (Wilson and Company 2009b). This report was conducted in support of the County General Plan Update EIR to document significant traffic impacts on regional arterials located in adjacent cities, as a result of the County of San Diego's General Plan Update. The complete Traffic Impacts to Adjacent Jurisdictions report is included in Appendix H. This report was conducted in response to the County of San Diego's NOP for the Draft EIR of the County of San Diego's General Plan Update and a letter sent by the County to adjacent cities requesting roads of concern from each city jurisdiction. In addition to the roadway segments identified in the above mentioned process, a number of additional regional arterial facilities were selected for analysis to ensure a comprehensive County wide assessment. A total of 16 incorporated cities were included in the adjacent cities report. The 16 incorporated Cities included in this assessment include: Carlsbad, Chula Vista, Del Mar, El Cajon, Encinitas,

Escondido, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach and Vista.

The following discussion is divided into six sections, including: 1) consideration of adjacent cities roadway classifications in the General Plan Update; 2) the methodology behind the Traffic Impacts to Adjacent Jurisdictions report for this EIR; 3) project related impacts; 4) existing federal, state and local regulations; and 5) relevant General Plan Update goals and policies; and 6) summary.

**Consideration of Adjacent Cities Roadway Classifications in the General Plan Update**

A Sphere of Influence (SOI) is a planning tool adopted and used by Local Agency Formation Commission (LAFCO) to designate the probable physical future boundaries and service areas for a city or special district. It is intended to ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands by preventing overlapping jurisdictions and duplication of services. Territory must first be located within a city's or district's SOI in order to be annexed. SOI are required to be updated every five years; however, they may also be periodically amended. Classifications of roadways located within SOI of adjacent cities were considered during the formation of the proposed General Plan Update. Table 2.15-22 identifies 76 unincorporated roadway segments located within adjacent cities SOI and provides a comparison of the proposed Mobility Element roadway classification to the existing city's roadway classification.

As shown in Table 2.15-22, the proposed General Plan Update classifications would be consistent with SOI roadway segment classifications for 35 segments, partially consistent for 10 roadway segments, and inconsistent with 26 roadway segments. Five roadway segments are not currently classified in the SOI. Adjacent cities with the greatest number of unincorporated County roadway segments located within their SOI include Escondido (27 segments), El Cajon (15 segments) and Chula Vista (14 segments). In Escondido, 18 segments would be consistent, 5 roadway segments would be partially consistent, and 4 roadway segments would not be consistent with SOI roadway segment classifications identified in the General Plan Update. In El Cajon, 4 roadway segments would be consistent and 11 roadway segments would not be considered consistent. In Chula Vista, 6 roadway segments would be consistent, 3 roadway segments would be partially consistent, and 5 roadway segments would not be considered consistent.

**Methodology of Adjacent Cities Traffic Assessment**

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance within adjacent cities. The analysis of the adjacent cities roadway segment LOS was based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecasted ADT volumes. Methodologies for determining roadway LOS vary amongst the cities. Standards and thresholds for the cities included in this report are discussed above in Section 2.15.1.2, Adjacent Cities, and shown in Tables 2.15-9 through 2.15-15.

The Cities of Carlsbad, Del Mar, El Cajon, Encinitas, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Marcos, Santee, Solana Beach and Vista utilize the SANTEC/ITE Guidelines for Traffic Impact Studies (TIS) in the San Diego Region (Amended February 2004) as the basis for defining project impacts. These thresholds are generally based upon an

acceptable increase in the V/C ratio for roadway segments**.** Table 2.15-23 summarizes the impact significance thresholds as identified by the SANTEC/ITE Guidelines. The following three jurisdictions have modified requirements from those stated in Table 2.15-23.

The City of San Diego considers D to be the acceptable LOS for freeways, roadways and intersections, except in undeveloped locations where LOS C is considered to be acceptable. The City of San Diego uses the same thresholds identified in Table 2.15-23, SANTEC/ITE Measures of Significant Project Traffic Impacts, for projects resulting in LOS E. However, the City of San Diego applies the following thresholds for projects resulting in LOS F: 1) freeways are allowed up to a 0.005 change in V/C or 0.5 mph; 2) roadways are allowed up to a 0.01 change in V/C or 0.5 mph; 3) intersections are allowed a 1.0 second delay; and 4) ramp meters are allowed a 1.0 second delay.

The City of Escondido considers LOS Mid D as the acceptable standard for circulation element roadway segments. In addition to the SANTEC Guidelines**,** the City of Escondido considers an increase in the V/C ratio by more than 0.02 on a roadway segment or that operates at a LOS D, E or F to be a significant impact. A proposed project is considered to have a significant impact on a facility if the additional project traffic causes the LOS to degrade from acceptable LOS Mid D or better to unacceptable LOS D, E, or F.

The City of Chula Vista considers LOS C to be the acceptable standard for circulation element roadway segments. Significant impacts are those impacts for which the addition of project trips results in an identifiable degradation in LOS on freeway segments, roadway segments, or intersections, triggering the need for improvement strategies.

Criteria for determining whether a project in Chula Vista results in significant impacts on roadway segments are as follows:

- LOS is D, E, or F
- Project trips comprise five percent or more of total segment volume
- Project adds greater than 800 ADT to the segment

**Project-Related Traffic Impacts to Adjacent Cities**

***Projected Roadway Segment LOS Levels***

Under implementation of the proposed General Plan Update, it is anticipated that a total of 42 roadway segments in adjacent cities will operate at a deficient LOS (see Table 4.3 in Appendix H, Traffic Impacts to Adjacent City Jurisdictions). Cities that are projected to experience deficient roadway segments with implementation of the proposed General Plan Update include: Poway (7 segments), Escondido (7 segments), San Diego (7 segments), Chula Vista (5 segments), San Marcos (4 segments), El Cajon (4 segments), Encinitas (2 segments), Santee (2 segments), La Mesa (2 segments), Solana Beach (1 segment), and Vista (1 segment). Carlsbad, Del Mar, Lemon Grove, National City, and Oceanside are not projected to experience deficient roadway segments with implementation of the proposed General Plan Update. These results indicate that implementation of the proposed General Plan Update may cause an increase in traffic which is substantial in relation to the traffic load and street system capacity. Therefore, this would be considered a significant impact and mitigation would be required.

### *Comparison of Existing Conditions to Proposed Project*

When comparing existing conditions to the proposed condition with implementation of the proposed project, a total of 34 segments would experience deterioration in LOS level that would be considered significant by the respective jurisdiction. Cities that would experience impacted roadway segments as compared to the existing condition include: San Diego (7 segments), Poway (6 segments), Chula Vista (5 segments), Escondido (4 segments), El Cajon (3 segments), San Marcos (3 segments), Santee (2 segments), Solana Beach (1 segment), Vista (1 segment), Encinitas (1 segment), and La Mesa (1 segment). Carlsbad, Del Mar, Lemon Grove, National City and Oceanside would not experience impacted roadway segments from implementation of the proposed project. Table 2.15-24 provides a comparison of existing roadway segment operations of adjacent cities to projected roadway operations of adjacent cities with implementation of the proposed project, for the impacted segments described above.

While 34 roadway segments would experience a significant deterioration in LOS with implementation of the proposed General Plan Update, some roadway segments would experience an improved LOS (see Table 5.3 in Appendix H). For example, the roadway segments of Avocado Boulevard from Washington Avenue to Chase Avenue in El Cajon and Bancroft Drive from Campo Road to the SR-94 westbound ramps in La Mesa would improve from the current LOS F to LOS B under implementation of the proposed General Plan Update. However, when compared to existing conditions, implementation of the proposed General Plan Update would contribute to 34 roadway segments in adjacent cities that would exceed the LOS standard established by the applicable jurisdiction. This would be considered a significant impact and mitigation would be required.

### Existing Federal, State and Local Regulations and Existing Regulatory Processes

The existing federal, State and local regulations (with the exception of County specific regulations) described above in Section 2.15.3.1, Issue 1: Unincorporated County Traffic and LOS Standards, would also be applicable to adjacent cities and are hereby incorporated by reference.

### Proposed General Plan Update Goals and Policies

The General Plan Update includes goals and policies that would prevent the substantial deterioration of transportation resources in adjacent cities. Within the Land Use Element and Mobility Element, various goals include specific policies to prevent the proposed General Plan Update roadway network from increasing in traffic or exceeding LOS standards.

In the Land Use Element, Goal LU-4 focuses on Inter-jurisdictional coordination by encouraging coordination with the plans and activities of other agencies that relate to issues such as land use, community character, transportation, energy, other infrastructure, public safety, and resource conservation and management in the unincorporated County and the region. Policy LU-4.3 supports this goal by requiring the invitation of comments and coordination of neighboring agencies, when appropriate. Goal LU-5 pertains to Climate Change and Land Use and encourages a land use plan and associated development techniques and patterns that reduce emissions of local greenhouse gases in accordance with State initiatives, while promoting public health. Policy LU-5.1 supports this goal by encouraging the reduction of vehicle trips within communities, which would reduce General Plan Update related traffic impacts. Goal LU-10 focuses on semi-rural and rural lands that buffer communities, protect

natural resources, foster agriculture, and accommodate unique rural communities. Policy LU-10.4 supports this goal by limiting the establishment of commercial and industrial uses in semi-rural and rural areas that are outside of villages (including rural villages) to minimize vehicle trips and environmental impacts. Goal LU-11 encourages commercial, office, and industrial development that is appropriately sited and designed to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths. Policy LU-11.8 supports this goal by encouraging processes that would reduce the frequency of employee related automobile trips. Goal LU-12 would promote sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development. Policy LU-12.2 supports this goal by requiring development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. This policy would reduce traffic related impacts associated with deteriorated LOS levels.

In the Mobility Element, Goal M-1 encourages a safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities. Policies M-1.1, M-1.2, and M-1.3 support this goal by prioritizing travel within communities, providing an interconnected public road network, and encouraging flexibility in design. Policies in support of Goal M-1 would reduce proposed project-related impacts such as congestion and LOS deterioration. Goal M-2 encourages a road network that provides adequate capacity to reasonably accommodate both planned land uses and regional traffic patterns, while supporting other General Plan goals such as providing environmental protections and enhancing community character. Policies M-2.1, M-2.2, and M-2.3 support this goal by establishing LOS criteria, improving traffic operations, and requiring environmentally sensitive road design. Goal M-4 promotes roads designed safe for all users and compatible with their context. Policy M-4.6 support this goal by requiring interjurisdictional coordination. Compact development patterns may encourage alternative transportation and reduce vehicle related trips and traffic. Coordination with adjacent jurisdictions may ensure that roads which cross SOIs are consistent in cross-section and capacity.

Goal M-5 encourages a multi-modal transportation system that provides for the safe, accessible, convenient, and efficient movement of people and goods within the unincorporated County. Policies M-5.1 and M-5.2 support this goal by requiring coordination with regional planning and transit agencies in order to provide a transportation network with sufficient capacity, connectivity and reduced impacts to adjacent communities. Goal M-9 promotes the effective use of the existing transportation network by reducing the need to widen roads through the effective use of the existing transportation network and maximizing the use of alternative modes of travel throughout the County. Policies M-9.1 and M-9.2 support this goal by focusing on transportation systems management and transportation demand management. These policies seek to maximize the efficiency of existing or improved road facilities while promoting alternative transportation methods which may reduce vehicular trips.

**Summary**

When compared to existing conditions, implementation of the proposed General Plan Update would result in 34 roadway segments in adjacent cities that would exceed the LOS standard established by the respective city. Therefore, this would be considered a significant impact and mitigation would be required. While the existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce traffic impacts to adjacent cities, specific measures that implement these policies and regulations are proposed to ensure that the

intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to adjacent cities traffic and LOS levels and specific implementation programs are identified as mitigation.

### *2.15.3.3 Issue 3: Rural Road Safety*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update would have a significant impact if it would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

**Impact Analysis**

Many County maintained roads in rural areas are two-lane roads that were constructed according to previous road standards. The alignment of many roads is curvilinear with varying horizontal and vertical curves. Drivers are required to constantly adapt their speed to account to regularly changing situations and circumstances that increase the opportunities for human error. In addition, street lights are not available on many rural roads in the unincorporated area. Adoption of the proposed General Plan Update would result in an increase in trips on many of the rural roadways within the unincorporated County. While reasonable drivers are able to traverse the County rural roads without incident, unreasonable drivers such as those who are inattentive, driving under the influence, drowsy, or those driving at inappropriate or excessive speeds would contribute towards higher crash rates on rural roads in the unincorporated area. Sensitive environmental habitat, steep terrain, and existing development make improvements to many rural roadways to current standards infeasible. The proposed project does not preclude operational improvements to rural roads in the unincorporated area. However, adoption of the proposed project would not guarantee that the provision of operational improvements to County roadways would be constructed concurrently with the anticipated increase in traffic volumes projected under the proposed General Plan Update.

Slow moving agricultural vehicles on roadways may also affect traffic operations on rural roadways in unincorporated County areas. Agricultural operations are a vital component to the economy of the unincorporated County (see Section 2.2, Agricultural Resources) and often during harvest season, slow moving agricultural vehicles operate regularly on County roadways. Generally, agricultural vehicles travel at speeds much slower than other motorists, such as 25 miles per hour on roadways with speed limits of 45 miles per hour. For this reason, agricultural vehicles are often considered slow moving vehicles and considered incompatible with other motorists. Implementation of the proposed General Plan Update would increase the amount of traffic on rural roadways with agricultural vehicles. Additionally, implementation of the proposed General Plan Update may result in the construction of new rural roadways, which would be utilized by agricultural vehicles. Although the majority of proposed roadways would be constructed in northwestern and southwestern communities, implementation of the proposed General Plan Update would allow for the construction of Mobility Element roadways in eastern community rural areas as well.

Another factor that can impact rural road safety is incompatibility of alternative transportation facilities with roadway and highway facilities. For example, the National Highway Transportation

Safety Administration (DOT 2008) estimates approximately 70,000 pedestrians and 46,000 cyclists are annually injured in traffic crashes. Many existing roadways and intersections in the County do not have fully dedicated pedestrian or bicycle facilities. Existing roadways and intersections would pose an increased risk of accident through an increase in traffic volumes, pedestrian volumes, or bicycle volumes resulting from the proposed General Plan Update. Implementation of the proposed General Plan Update would increase traffic in the County, thereby potentially creating a hazard to pedestrians or bicyclists. Adoption of the proposed project does not preclude the provision of additional bicycle and/or pedestrian facilities. However, adoption of the proposed project would not guarantee that additional pedestrian and/or bicycle facilities would be constructed concurrently with the anticipated increase in traffic volumes on County roadways. Additionally, many policies within the proposed General Plan Update encourage the use and development of public transportation facilities, thereby increasing the potential for hazards to occur from incompatibilities between cars, bicycles and pedestrians.

Railroad crossings at roadways can also contribute to transportation hazards. According to the FHWA, the U.S. has approximately 139,862 public at-grade rail crossings. Of these crossings, approximately 50,132 have gates, 23,215 have flashing lights, and 1,248 have highway traffic signals, wigwags, and bells. Additionally, FHWA estimates in 2007, incidents at public highway-rail crossings in the U.S. resulted in 299 deaths and 817 injuries. In 2007, 486 people were killed and 393 were injured nationally while trespassing on railroad rights-of-way and property (FHWA 2008). As shown in Figure 2.15-6, there are two railroad corridors that traverse portions of the unincorporated County of San Diego. Although minimal portions of the County have rail facilities, those which do are susceptible to related safety hazards.

**Existing Federal, State and Local Regulations and Existing Regulatory Processes**

Multiple federal, State and local regulations exist to prevent transportation hazards from occurring within the County. Federal regulations pertaining to transportation safety include those such as the ADA, which ensures disabled populations are safely and adequately provided with transportation facilities, and the HCM, which provides safety standards for transit throughout the Nation. The General Plan Update would also be required to comply with the existing County Zoning Ordinance Sections 6750-6799, the San Diego County Public Road Standards, and the San Diego County Private Road Standards which provide guidance for roadway and transportation facility development in an effort to ensure a safe roadway system throughout the County.

**Proposed General Plan Goals and Policies**

The General Plan Update includes goals and policies that would prevent transportation hazards within the unincorporated County. Within the Land Use Element and Mobility Element, various goals include specific policies to prevent the proposed General Plan Update roadway network from increasing transportation hazards.

Within the Land Use Element, Goal LU-2 promotes the conservation and enhancement of the unincorporated County's varied communities, rural setting, and character. Policy LU-2.8 supports this goal by requiring measures that minimizes impacts that are detrimental to human health and safety. Goal LU-6 promotes a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.10 supports this goal by requiring that development be located and

designed to protect property and residents from the risks of natural and man-induced hazards. Within the Mobility Element, Goal M-4 encourages roads designed to be safe for all users and compatible with their context. Policies M-4.3, M-4.4, and M-4.5 support this goal by requiring roads have safe and adequate emergency access. Goal M-9 encourages the effective use of the existing transportation network. Policy M-9.1 supports this goal by encouraging operational improvements that increase the effective vehicular capacity of the public road network.

**Summary**

Implementation of the proposed General Plan would result in the adoption of a Mobility Element network that includes existing roadways with horizontal and vertical curves that are sharper than existing standards. This would be considered a potential transportation hazard. Additionally, the proposed General Plan Update may pose an increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns. Implementation of the proposed General Plan Update would also have the potential to result in hazards from at-grade rail crossings. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce hazards associated with rural roadways, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to rural roadway safety and specific implementation programs are identified as mitigation.

### *2.15.3.4 Issue 4: Emergency Access*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update would have a significant impact if it would result in inadequate emergency access.

**Impact Analysis**

Inadequate emergency access and egress can occur as a result of an incomplete or not fully interconnected roadway network, such as inadequate roadway widths, turning radii, dead end or gated roads, one-way roads, single ingress and egress routes, or other factors. In addition to Mobility Element roads, a comprehensive network includes regional freeways and highways and local public, private, and fire access roads. This General Plan Update identifies a Mobility Element road network, but all types of roads must be considered to fully address emergency access. While the Regional Transportation Plan addressed the regional freeways and highways, community plans need to consider local public and fire access roads to fully address emergency access requirements.

The lack of a comprehensive network can result in severe traffic congestion or blocked sole routes of ingress that limit the responsiveness of emergency vehicles or trap residents trying to flee during an emergency. In addition, inadequate roadway widths and turning radii can make it difficult for personnel to maneuver rescue equipment in an emergency. Dead end and one-way roads and traffic can impair emergency access and cause delays in response if a wrong turn is taken. Gated communities, which are popular in the unincorporated areas, can also obstruct access for emergency vehicles and obstruct egress routes for residents fleeing in the event of

an emergency such as a fire. Under the proposed General Plan Update, existing inadequate roadway widths, dead end roads, one-way roads, and gated communities, all of which have the potential to impair emergency access, would still occur. Therefore, this would be considered a potentially significant impact and mitigation would be required.

Private roads also have the potential to impair emergency access. Private roads are often unpaved and poorly maintained, which poses risks to public safety, especially in high wildfire hazard areas. Dirt roads, or roads with potholes, may cause damage to fire apparatus vehicles and/or impede an emergency vehicle from accessing a site. Dirt roads pose additional safety concerns by having dust obstruct the view of evacuees during a firestorm, which can cause vehicles to drive off the road or into the fire, as demonstrated in the October 2003 wildfires in San Diego County. This problem is compounded in areas with existing populations that have only one point of access. Under the proposed General Plan Update, existing private roadways with the potential to impair emergency access would still occur. Therefore, this would be considered a potentially significant impact and mitigation would be required.

Some existing roadway conditions within the rural areas of the unincorporated County could result in inadequate emergency response for the population anticipated under the General Plan Update. However, roadways that would be constructed as part of the proposed General Plan Update would be required to meet current State and County standards for adequate emergency access. Additionally, any future roadway construction proposed as part of the General Plan Update Mobility Element would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts occurring from construction of new roadway segments under the General Plan Update would be mitigated to below a level of significance. However, some environmental impacts associated with the construction of roadway facilities may be significant and unavoidable, such as impacts associated with noise, hydrology/water quality, and biology. These impacts are discussed in detail in other sections of this EIR. Therefore, this would be considered a potentially significant impact and mitigation would be required.

**Existing Federal, State and Local Regulations and Existing Regulatory Processes**

Multiple regulations exist to ensure adequate emergency access exists within the County. The development of roadway facilities, consistent with the proposed General Plan Update, would be required to comply with the County's Zoning Ordinance Sections 6750-6799, San Diego County Public Road Standards, and San Diego County Private Road Standards, which provide guidance for roadway and transportation facility development and require sufficient emergency access is provided in new development. Additionally, the proposed project would be required to comply with the San Diego County Consolidated Fire Code, which dictates minimum design standards for "Fire Apparatus Access Roads" and includes minimum road standards, secondary access requirements, and restrictions for gated communities. Development under the General Plan Update would also be required to comply with CEQA, which requires that projects identify any potential emergency access hazards. Mitigation measures would be required for any significant impacts.

## Proposed General Plan Update Goals and Policies

The General Plan Update includes goals and policies that would reduce the potential for emergency access to be impaired within the unincorporated County. Within the Land Use Element, Mobility Element, and Safety Element, various goals include specific policies to prevent the proposed General Plan Update roadway network from impairing emergency access.

Within the Land Use Element, Goal LU-2 promotes the conservation and enhancement of the unincorporated County's varied communities, rural setting, and character. Policy LU-2.8 supports this goal by requiring measures that minimizes impacts that are detrimental to human health and safety. Goal LU-6 promotes a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policy LU-6.10 supports this goal by requiring that development be located and designed to protect property and residents from the risks of natural and man-induced hazards. Goal LU-12 encourages sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development. Policy LU-12.2 supports this goal by requiring development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses.

Within the Mobility Element, Goal M-1 promotes a safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities. Policy M-1.2 supports this goal by planning transportation facilities that can be adequately served by emergency services in the case of a transportation hazard. Goal M-3 supports new or expanded transportation facilities that are phased with and equitably funded by the development that necessitates their construction. Policy M-3.3 supports this goal by requiring development provide multiple ingress/egress routes whenever feasible in conformance with State law, the County Fire Code, and the General Plan Update Safety Element. Goal M-4 encourages roads designed to be safe for all users and compatible with their context. Policy M-4.4 supports this goal by requiring the design and construction of public and private roads to allow fire apparatus and emergency vehicles access while accommodate outgoing vehicles from evacuating residents.

Within the Safety Element, Goal S-3 would minimize injury and loss of life resulting from structural and wildland fires. Policy S-3.4 and S-3.5 supports this goal by requiring development to be located near available fire and emergency service and requiring development provide secondary access when necessary to ensure adequate fire safety.

## Summary

Under the proposed General Plan Update, existing inadequate roadway widths, dead end roads, one-way roads, and gated communities would continue to occur in the unincorporated County, all of which have the potential to impair emergency access. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to improve emergency access, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to emergency access and specific implementation programs are identified as mitigation.

### *2.15.3.5 Issue 5: Parking Capacity*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update would have a significant impact if it would result in inadequate parking capacity.

**Impact Analysis**

Parking requirements in the County are usually addressed on the local level through standards set forth in the County of San Diego Zoning Ordinance, Parking Regulations, Sections 6750-6799 and the County of San Diego Off-Street Parking Design Manual, which implements Section 6793(c) of the County Zoning Ordinance. The regulations are intended to require projects to provide adequate off-street parking and loading, thereby reducing traffic congestion, allowing more efficient utilization of on-street parking, promoting more efficient loading operations, and reducing the use of public streets for loading purposes. Additionally, the regulations are intended to minimize the secondary effects of vehicles, such as vehicular noise or visual impacts from headlights and unscreened parked vehicles.

Almost all land uses proposed under the General Plan Update would require parking facilities when developed. However, limited impact industrial, medium impact industrial, high impact industrial, office professional, rural commercial, general commercial, and neighborhood commercial land uses would require more parking facilities than other land uses. Generally, when these land uses are developed, employees or consumers would commute from other areas and substantial parking facilities would be required. The development of parking facilities to support these industrial and commercial land uses would be required to follow existing parking standards and requirements. Compliance with existing parking regulations would ensure that adequate parking facilities are provided for development of new land uses consistent with the General Plan Update. However, the land uses proposed under the General Plan Update would have the potential to require modification to existing County parking regulations.

In addition to the above-mentioned land uses, the proposed General Plan Update would allow for the development of high density land uses, such as village core mixed use and village residential. These land uses have development patterns that would be characterized as compact, higher density development which is located within walking distance of commercial services, employment centers, civic uses, and transit. While village land uses are intended to encourage pedestrian and alternative transportation, the high density development of these areas would create a potential land use conflict that would result in inadequate parking facilities being available. For example, the construction of housing or commercial buildings within these land use designations would prevail over the construction of parking lots due to the desirable location of housing or potential revenue associated with commercial establishments. All future development proposed under the above mentioned land uses would be required to comply with existing County parking regulations to ensure that adequate parking facilities. However, the land uses proposed under the General Plan Update would have the potential to require modification to existing County parking regulations, therefore this would be considered a significant impact and mitigation would be required.

**Existing Federal, State and Local Regulations and Existing Regulatory Processes**

Future development under the proposed General Plan Update would be required to comply with the standards set forth in the County of San Diego Zoning Ordinance, Parking Regulations, Sections 6750-6799. The County Zoning Ordinance establishes parking regulations for the unincorporated County and includes specific parking requirements for existing and proposed development. The proposed General Plan Update would also be required to comply with the County of San Diego Off-Street Parking Design Manual, which implements Section 6793(c) of the County Zoning Ordinance.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that would promote the supply of adequate parking facilities within the unincorporated County. Within the Mobility Element, various goals include specific policies to ensure that the proposed General Plan Update would provide adequate parking facilities.

Within the Mobility Element, Goal M-8 supports a public transit system that reduces automobile dependence and serves all segments of the population. Policy M-8.6 supports this goal by improving regional opportunities for park-and-ride facilities. Goal M-9 encourages the effective use of the existing transportation network by reducing the need to widen roads. Policies M-9.3 and M-9.4 support this goal by encouraging preferred parking and requiring park-and-ride facilities in certain land uses and development. Goal M-10 encourages parking regulations that serve community needs and enhance community character. Policies M-10.1, M-10.2, M-10.3, M-10.4, M-10.5, and M-10.6 support this goal by setting standards for parking capacity and design such as providing sufficient parking capacity for motor vehicles consistent with a project's location, use, and intensity; requiring development to maximize on-street parking; and minimizing parking where it is not needed.

**Summary**

Development of parking facilities associated with the land uses proposed under the General Plan Update would be required to follow existing parking standards and requirements. Implementation of the proposed General Plan Update would result in high density land uses, such as village residential or village core mixed use, which would experience area constraints and other factors described above. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to provide adequate parking facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to parking capacity and specific implementation programs are identified as mitigation.

### *2.15.3.6 Issue 6: Alternative Transportation*

**<u>Guidelines for Determination of Significance</u>**

Based on Appendix G of the CEQA Guidelines and the County of San Diego Guidelines for Determining Significance, Transportation and Traffic, the proposed County General Plan Update

would have a significant impact if it would conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

## Impact Analysis

Implementation of the proposed General Plan Update would create provisions for alternative modes of transportation, including bike lanes, bus stops, trails, and sidewalks. Many policies proposed in the General Plan Update would require coordination between the County and the agencies responsible for public transportation planning, including SANDAG, Caltrans, transit agencies, adjacent jurisdictions, and the California High-Speed Rail Authority. Increased coordination between these agencies and the County would reduce the potential for the proposed General Plan Update to conflict with adopted policies, plans, or programs supporting alternative transportation. Implementation of the proposed General Plan Update would also result in a number of new County goals, policies, and land uses encouraging the increased use and development of public transportation facilities. Village residential and village core mixed use land uses would allow for the development of high density development while fostering increased light rail, bus, bicycle, and pedestrian use.

Although multiple goals and policies are proposed under the General Plan Update, the potential exists for the goals and policies to conflict with existing adopted plans or policies that pertain to alternative transportation. For example, the existing adopted policies, plans and programs which support alternative transportation within the County were based on the existing County of San Diego General Plan, rather than the proposed General Plan Update. Therefore, it is possible these policies and programs do not account for proposed high density land uses such as village residential and village core mixed use. Additionally, the reallocation of population and concentration of high density land uses into the western portion of the unincorporated County, as proposed under the General Plan Update, would have the potential to require modification to existing public transportation policies, plans, and programs.

### Existing Federal, State and Local Regulations and Existing Regulatory Processes

Multiple federal, State, and local regulations exist to support alternative transportation programs within the County. SANDAG has created the 2030 RTP and 2006 RTIP, which guides and encourages alternative transportation development within the region. County Public Road Standards identify when and how roads should be improved to accommodate bicycle and pedestrian facilities. The County Subdivision Ordinance requires subdivisions containing 200 or more lots to dedicate rights-of-way for streets, along with pedestrian and bicycle facilities. The County Trails Programs manages and develops recreational trails used by pedestrians throughout the County. Some community plans identify pedestrian and bicycle policies that affect future development. In addition, various master plans, design guidelines, and specific plans would require pedestrian or bicycle facilities. For example, the Ramona Road Master Plan identifies specific areas where sidewalks should be provided and it identifies safe walking zones within 0.5-mile of schools. The Ramona Road Master Plan also recommends specific improvements to bicycle facilities that provide access to schools.

Additional policies and regulations pertaining to alternative transportation include the following: the ADA, which requires pedestrian facility design to comply with ADA accessibility standards; the HCM 2000, which contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various roadway facilities, and the effects of transit, pedestrians, and bicycles on the performance of these systems; TDA funds, which are

used for the development and support of public transportation in California and are allocated to areas of each county based on population, taxable sales, and transit performance; and the County's Zoning Ordinance which provides standards for bicycle parking and sidewalks.

**Proposed General Plan Update Goals and Policies**

The General Plan Update includes goals and policies that would promote alternative transportation within the unincorporated County. Within the Land Use Element and Mobility Element, various goals and policies would encourage the development of public transportation in the unincorporated County.

In the Land Use Element, Goal LU-5 promotes a land use plan and associated development techniques and patterns that reduce emissions of greenhouse gases while promoting public health. Policies LU-5.1, LU-5.4 and LU-5.5 support this goal by reducing vehicle trips within communities, promoting infill and redevelopment and prohibiting projects that impede bicycle or walking access. Goal LU-9 promotes well-defined, planned, and developed community cores, such as villages and town centers, which contribute to a community's identity and character. Policy LU-9.8 supports this goal by requiring new development within villages to include road networks, pedestrian routes, and amenities to maintain connectivity. Goal LU-11 supports commercial, office, and industrial development that is appropriately sited and designed to enhance the unique character of each unincorporated community and to minimize vehicle trip lengths. Policy LU-11.6 supports this goal by locating new office development in areas where public transit and vehicular linkages exist.

Within the Mobility Element, Goal M-3 supports new or expanded transportation facilities that are phased with and equitably funded by the development that necessitates their construction. Policies M-3.1 and M-3.2 support this goal by requiring development projects to contribute their fair share toward financing transportation facilities and encouraging development that accommodates alternative transportation. Goal M-4 encourages roads designed to be safe for all users and compatible with their context. Policy M-4.3 support this goal by encouraging rural roads that safely accommodate transit, pedestrians, bicyclists, and equestrians. Goal M-8 encourages a public transit system that reduces automobile dependence and serves all segments of the population. Policies M-8.1, M-8.2, M-8.3, M-8.4, M-8.5, M-8.6, M-8.7, and M-8.8 support this goal by promoting transit service for transit-dependent populations, providing transit service to key community facilities and services, providing transit stops that facilitate ridership, requiring transit stops to provide amenities, improving transit and park-and-ride facilities, improving inter-regional travel modes, and coordinating with large employers to provide shuttles and other means of transportation. Goal M-9 promotes the effective use of the existing transportation network by reducing the need to widen roads through and maximizing the use of alternative modes of travel throughout the County. Policies M-9.2 and M-9.4 support this goal by promoting transportation demand management and requiring park-and-ride facilities. These policies seek to maximize the efficiency of existing or improved road facilities while promoting alternative transportation methods which would reduce vehicle trips on the proposed roadway network.

Goal M-11 promotes bicycle and pedestrian networks and facilities that provide safe, efficient, and attractive mobility options as well as recreational opportunities for County residents. Policies M-11.1, M-11.2, M-11.3, M-11.4, M-11.5, M-11.6 and M-11.7 support this goal by planning and expanding pedestrian and bicycle networks, requiring incorporation of alternative

modes of transportation in new development, and improving funding and coordination for bicycle and pedestrian facilities.

**Summary**

Implementation of the proposed General Plan Update would create provisions for alternative modes of transportation, including bike lanes, bus stops, trails, and sidewalks. Many policies proposed in the General Plan Update would require coordination between the County and the agencies responsible for public transportation planning; however, existing alternative transportation plans and policies would require modification to be consistent with the goals and policies contained in the General Plan Update. This would be considered a potentially significant impact. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to promote alternative transportation plans and policies, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to alternative transportation plans and policies and specific implementation programs are identified as mitigation.

## 2.15.4 Cumulative Impacts

### *2.15.4.1 Issue 1: Unincorporated County Traffic and LOS Levels*

The area of analysis for unincorporated County traffic and LOS levels is represented by the cumulative traffic map, as included in the Traffic and Circulation Assessment prepared for the proposed General Plan Update by Wilson and Company (2009a). The cumulative traffic map provides a worst-case, maximum build-out scenario of the unincorporated County by combining the most intensive land uses from the proposed project and all the project alternatives identified in Chapter 4.0, Project Alternatives, of this EIR. The cumulative traffic map also includes traffic from cumulative projects that would be inconsistent with the General Plan Update, tribal projects, and the conversion of FCI land to other uses. Table 2.15-25 displays projected lane miles by facility type (State highways, Mobility Element roads and local public roads) and community under the cumulative traffic map scenario. As shown in Table 2.15-25, the cumulative traffic map roadway network includes 614 lane miles of State highway, 2,407 lane miles of County ME roads, and 703 roadway lane miles of local public roads, for a total of 3,724 roadway lane miles. When compared to the proposed project, the cumulative traffic map scenario has the same number of State highway, ME road, and local public road lane miles. The extent of the cumulative traffic map roadway system was determined by combining the most intensive land uses from the proposed project and all alternatives proposed under the General Plan Update. Therefore, the cumulative map includes an identical roadway network to the proposed project because the proposed project contains the most intensive land uses of all project alternatives.

Table 2.15-26 shows roadway network performance under the cumulative traffic map scenario. Performance is reported by facility type (State highways and Mobility Element roads) and community. LOS E and F are considered to be deficient facilities and subject to mitigation. As shown in Table 2.15-26, a total of 163 lane miles of facilities (approximately 32 lane miles of State highway and 131 lane miles of Mobility Element roads) would operate at unacceptable LOS E. A total of 138 lane miles of facilities (49 lane miles of State highway and 88 lane miles of Mobility Element roads) would operate at unacceptable LOS F under the cumulative traffic

map. When compared to existing conditions (see Table 2.15-6), the cumulative traffic map would result in fewer total LOS F segments (138 lane miles compared to 168 lane miles existing) and greater total LOS E segments (163 lane miles compared to 152 lane miles existing). Therefore, cumulative projects would result in additional LOS E roadway segments and this would be considered a significant cumulative impact. As shown in table 2.15-20, the proposed General Plan Update is projected to result in 125 total roadway lane miles at LOS E and 128 total roadway lane miles at LOS F. Therefore, the proposed project would result in a cumulatively considerable contribution to a significant cumulative traffic impact.

Under the cumulative traffic scenario, 34 State highways and 124 Mobility Element roads (for a total of 158 roadway segments) would operate at a deficient LOS. This would be considered a significant cumulative impact. Deficient roadway segments under the cumulative map are shown in Table 5-23 in the Traffic and Circulation Assessment, located in Appendix G of this document. The proposed General Plan Update would result in a total of 136 deficient roadway segments. Therefore, the proposed project would result in a cumulatively considerable contribution to a significant cumulative traffic impact.

### *2.15.4.2 Issue 2: Adjacent Cities Traffic and LOS Levels*

The area of analysis for cumulative project impacts to adjacent cities is the County of San Diego and adjacent cities, as discussed in Section 2.15.1.2, Adjacent Cities. Cumulative projects, such as those proposed in the general plans of surrounding jurisdictions, when combined would significantly impact a number of roadway segments, as shown in Table 2.15-27. This table shows that cumulative projects, without the proposed project, would result in 33 roadway segments being significantly impacted upon build-out of respective adjacent cities' general plans and build-out of the existing County of San Diego General Plan. Cities that would experience impacted roadway segments under cumulative conditions include: City of San Diego (8 segments), Poway (7 segments); Chula Vista (5 segments); San Marcos (3 segments); Escondido (3 segments); Santee (2 segments); El Cajon (2 segments), Solana Beach (2 segments) and Vista (1 segment). This table indicates that cumulative projects would result in a significant cumulative impact to adjacent cities' traffic and LOS levels. Additionally, the proposed General Plan Update is projected to result in 34 adjacent city roadway segments being significantly impacted upon build-out (see Table 2.15-24). When compared to cumulative project impacts, the proposed project would result in impacts to one additional roadway segment. Therefore, the proposed project would result in a cumulatively considerable contribution to a significant cumulative traffic impact.

### *2.15.4.3 Issue 3: Rural Road Safety*

The area of analysis for cumulative transportation operation includes the County of San Diego and immediately surrounding jurisdictions. Cumulative projects in these areas include projects consistent with surrounding jurisdictions' general plans and regional roadway plans such as the SANDAG RTP and SCAG RTP. Similar to the proposed project, cumulative projects in surrounding jurisdictions would face similar potential transportation operational issues as those in the unincorporated County. Older roadways in incorporated jurisdictions that surround the County would not be adequate by existing roadway standards. Additionally, many unincorporated areas that surround the County, including areas within the Counties of Riverside and Imperial have rural roadway conditions similar to the unincorporated County. Therefore, cumulative projects in these areas would face the same traffic operational concerns including

roadway networks that include existing roadways with horizontal and vertical curves sharper than existing standards; increased traffic on rural roads with slow moving agricultural vehicles; increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns; or hazards from at-grade rail crossings. While cumulative projects would not preclude improvements to roadways with potential hazards, there is no guarantee that these improvements would be constructed concurrently with the anticipated increase in vehicle trips on these roadways. Therefore, cumulative projects would result in a significant cumulative impact to rural road safety. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative roadway safety impact.

### *2.15.4.4 Issue 4: Emergency Access*

The area of analysis for cumulative emergency access impacts includes the County of San Diego and surrounding jurisdictions. Cumulative projects in this area would encounter similar emergency access impairment issues as the proposed project. Existing conditions in these jurisdictions could result in existing inadequate roadway widths, dead end roads, one-way roads, and gated communities, all of which have the potential to impair emergency access, would still occur. However, cumulative emergency access impacts would be limited to the immediate vicinity of the impact, such as multiple obstructions to emergency access along the same route to an emergency care facility hospital. In addition, most cumulative projects, such as those identified in the SANDAG RTP, SCAG RTP, and applicable general plans, which propose the construction of new roadways, would be required to meet current State and applicable jurisdictional standards, in addition to CEQA requirements. Community plans would also be required to consider local public and fire access roads to fully address emergency access requirements. The exception to this would be projects in Baja California, Mexico and projects on tribal land; however it would be unlikely for cumulative projects on tribal lands or within Mexico to occur simultaneously and in close enough proximity to one another to create a potentially significant cumulative emergency access impact on roadways in the County. Therefore, cumulative project impacts would be considered less than significant because emergency access impacts would be limited to the immediate vicinity of a project area and associated impacts would be considered direct, not cumulative. The proposed project would not contribute to a significant cumulative impact associated with emergency access.

### *2.15.4.5 Issue 5: Parking Capacity*

The area of analysis for cumulative parking capacity includes the County of San Diego and the immediate vicinity of land uses requiring parking, including those located in surrounding jurisdictions. Cumulative projects in this area would face similar parking capacity issues as the proposed project. Many jurisdictions surrounding the unincorporated County are densely populated, especially in the western portion of the unincorporated County. Therefore, the potential exists that existing and proposed high density land uses, designated under surrounding jurisdictions general plans, would not be able to supply adequate parking facilities, due to area constraints. However, cumulative parking impacts would be limited to the immediate vicinity of the impact, such as a specific urban development project. In addition, most future cumulative projects would be required to comply with existing regulations pertaining to parking facilities, such as jurisdictional parking, zoning and road standards. The exception to this would be projects in Baja California, Mexico, and projects on tribal land; however it would be unlikely for cumulative projects on tribal lands or within Mexico to occur simultaneously and in close enough proximity to one another to create a potentially significant cumulative parking impact on

County facilities. Therefore, cumulative projects would not result in a significant cumulative impact because impacts associated with parking would be limited to the immediate vicinity of a project area and associated impacts would be considered direct, not cumulative. The proposed project would not contribute to a significant cumulative impact associated with parking capacity.

### *2.15.4.6 Issue 6: Alternative Transportation*

The area of analysis for cumulative alternative transportation impacts includes the County of San Diego and immediately surrounding jurisdictions. Cumulative projects in these areas include projects consistent with surrounding jurisdictions' general plans and regional roadway plans such as the SANDAG RTP and SCAG RTP. Similar to the proposed project, cumulative projects would potentially impair existing alternative transportation plans, policies, or programs. Future development projects, consistent with applicable general plans, would locate land uses that are dependent on alternative transportation in areas that were not planned for in existing public transportation, plans and programs, such as SANDAG RTP and SCAG RTP. Additionally, if cumulative projects in surrounding jurisdictions are not effectively communicated and planned with agencies managing alternative transportation in region, conflicts would occur. However, most cumulative projects would be required to comply with existing federal, State, and local regulations, such as ADA, HCM 2000, TDA funds, 2030 RTP, 2006 RTIP, and any applicable Community plans or jurisdictional standards, such as a zoning ordinance. The exception to this would be projects in Baja California, Mexico, and projects on tribal land. However, since the majority of cumulative projects would be required to comply with existing regulations, cumulative project impacts would be considered less than significant. Therefore, the proposed project would not contribute to a significant cumulative impact associated with alternative transportation.

## 2.15.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed project would have a potentially significant impact to unincorporated County traffic and LOS standards; adjacent cities traffic and LOS standards; transportation hazards; emergency access; parking capacity; and alternative transportation. The proposed project would have a potentially significant cumulative impact to unincorporated County traffic and LOS standards, adjacent cities traffic and LOS standards, and rural roadway hazards.

## 2.15.6 Mitigation

### *2.15.6.1 Issue 1: Unincorporated County Traffic and LOS Standards*

Implementation of the proposed General Plan Update would result in a total of 136 deficient roadway segments throughout the unincorporated County (approximately 31 State highway segments and 105 Mobility Element segments) which would result in a significant impact. Appendix I of this EIR provides a detailed table and maps identifying the deficient roadways and describing the rationale behind the infeasibility for improving these deficient roadway segments. General Plan Update policies and mitigation measures (described further below) have been identified that would minimize the significant impacts related to traffic and LOS standards in the unincorporated area. However, the General Plan Update policies and mitigation measures would not fully reduce impacts to below a level of significance due to the magnitude of the traffic

impacts. Therefore, other measures that would further reduce the project's significant traffic impacts were considered and are discussed below.

**Infeasible Mitigation Measures**

The majority of measures that were considered in attempting to further reduce the 136 deficient roadway segments identified for the proposed project included new or expanded road and/or intersection construction to mitigate other projected failing segments. However, based on criteria developed in the draft General Plan Update, these measures were rejected as infeasible for the reasons discussed below. Additionally, Appendix I of this EIR provides a detailed table and map identifying the deficient roadways and describing the rationale behind the infeasibility for improving these deficient roadway segments. The Board of Supervisors must ultimately decide that these measures are infeasible and would not be implemented. Therefore, it is possible that some of these measures would be included as part of the project prior to adoption.

State law requires jurisdictions to develop a circulation (mobility) network that correlates with the land uses proposed in the General Plan. Therefore, a lower LOS should be accepted only in special circumstances. The standard adopted by the Board of Supervisors for the LOS on Mobility Element roads is LOS D. The General Plan Update is tasked with planning for growth while preserving the County's environmental, cultural, and historical resources. The recommended road network is based on realistic expectations and provides predictability for future development. It seeks to balance benefits of an acceptable LOS with constraints that limit the County's ability to provide improvements. In some cases**,** the constraints are so substantial that they render future road construction infeasible or impractical. To address such cases, the County established the following LOS E/F criteria to define the conditions where a failing LOS is acceptable, because mitigation to fully reduce the impact would be infeasible for one or more of the reasons described in the following sections. Appendix I of this EIR provides a detailed table identifying the deficient roadways and describing the rationale for accepting deficient roadway segments.

**Substantial Constraints Affecting New or Expanded Road Construction**

***Environmental Impacts***

Construction of some roads would significantly impact important habitats, destroy archaeological sites, impact waterways, or require the demolition of historic landmarks. The preservation of valuable resources may outweigh the benefits of road improvements. Thus, a lower LOS may be acceptable as a tradeoff for avoiding environmental impacts. In addition, the effort to avoid or mitigate undesired impacts may have a major effect on construction costs.

***Established Land Development***

Existing businesses, historic buildings, established neighborhoods, and a pedestrian-friendly environment are essential components of a healthy town center. Road improvements that negatively affect these components can be undesirable. Wider roads may divide a town and change its character. Costs to widen a road are substantially increased by the acquisition of right-of-way and the relocation of existing land uses. If costly construction or widening of roads substantially disrupts the vitality of a town center, a lower LOS may be preferable. In some instances, road improvements may also increase dangers to pedestrians, in which case a lower LOS may be preferable.

### Conditions Under Which a Road May be Exempted from County LOS Standards

#### *Town Centers*

Town centers further a number of project objectives such as improving housing affordability, accommodating growth, and helping to define the character of a community. Therefore, the road may be exempted from County LOS standards when widening the road would obstruct pedestrian movements, impede the economic vitality of existing/planned businesses, require the demolition of historic structures, or negatively alter the overall character of the area.

#### *Marginal Deficiencies*

Exempting a road from County LOS standards may be the more preferable choice when a road failure results from only a marginal deficiency in performance. Traffic congestion on a small portion of a road may produce a failing LOS for only that short segment while the remainder of the road is acceptable. Due to the short segment length, overall delays may be small in comparison to the travel time along the length of the entire road corridor. In many cases, operational improvements such as synchronized signals and additional turn lanes can alleviate the problem and are more cost effective than adding new travel lanes.

Some failing roads are projected to carry a traffic volume that is not significantly higher than the acceptable threshold (LOS D). If the projected volume is not anticipated to affect overall traffic operation, planning for a wider road to accommodate the additional traffic may not be required. Acceptance of a lower LOS is particularly appropriate when underutilized, alternate routes are available.

#### *Environmental Constraints*

Major physical and environmental constraints can severely hinder construction of needed improvements for some failing roads. The proposed General Plan Update policies seek to minimize environmental impacts and minimize road construction costs. In addition, the planned road network must be consistent with the County's Multiple Species Conservation Plan. The nature of the constraints, the impact of needed improvements, potential effects on sensitive habitat/species, the availability of alternate routes, the cost of construction, and the need for better traffic circulation are carefully considered by staff before making a recommendation to accept a failing LOS.

Because the measures listed above and in Appendix I have been found to be infeasible by the County and would not be implemented, impacts would be significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts to unincorporated County traffic and LOS levels. However, without significant reductions in the overall growth of the County, impacts would still remain significant and unavoidable.

### General Plan Update Policies

The following General Plan Update policies would reduce impacts associated with unincorporated County traffic and LOS standards, but not to below a significant level.

**Policy LU-5.1: Reduction of Vehicle Trips within Communities.** Incorporate a mixture of uses within Villages and Rural Villages and plan residential densities at a level that support

multi-modal transportation, including walking, bicycling, and the use of public transit, when appropriate.

**Policy LU-10.4: Commercial and Industrial Development.** Limit the establishment of commercial and industrial uses in Semi-Rural and Rural areas that are outside of Villages (including Rural Villages) to minimize vehicle trips and environmental impacts.

**Policy LU-11.8: Permitted Secondary Uses.** Provide a process where secondary land uses may be permitted when appropriate and compatible with the primary commercial, office, and light industrial uses, in order to better serve the daily needs of employees and to reduce the frequency of related automobile trips. This policy is not intended for high impact industrial uses.

**Policy LU-12.2: Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

**Policy M-1.1: Prioritized Travel within Community Planning Areas.** Provide a public road network that accommodates travel between and within community planning areas rather than accommodating overflow traffic from State highways and freeways that are unable to meet regional travel demands.

**Policy M-1.2: Interconnected Road Network.** Provide an interconnected public road network with multiple connections that improve efficiency by incorporating shorter routes between trip origin and destination, disperse traffic, reduce traffic congestion in specific areas, and provide both primary and secondary access/egress routes that support emergency services during fire and other emergencies.

**Policy M-1.3: Treatment of High-Volume Roadways.** To avoid bisecting communities or town centers, consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads through landscaping, design, and/or careful location of facilities.

**Policy M-2.1: Level of Service Criteria.** Require development projects to provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County pursuant to the criteria specifically identified in the accompanying text box (Criteria for Accepting a Road Classification with Level of Service E/F). When development is proposed on roads where a failing level of service has been accepted, require feasible mitigation in the form of road improvements or a fair share contribution to a road improvement program, consistent with the Mobility Element road network.

**Policy M-2.2: Access to Mobility Element Designated Roads.** Minimize direct access points to Mobility Element roads from driveways and other non-through roads to maintain the capacity and improve traffic operations.

**Policy M-2.3: Environmentally Sensitive Road Design.** Locate and design public and private roads to minimize impacts to significant biological and other environmental and visual

resources. Avoid road alignments through floodplains to minimize impacts on floodplain habitats and limit the need for constructing flood control measures. Design new roads to maintain wildlife movement and retrofit existing roads for that purpose. Utilize fencing to reduce road kill and to direct animals to under crossings.

**Policy M-3.1: Public Road Rights-of-Way.** Require development to dedicate right-of-way for public roads and other transportation routes identified in the Mobility Element roadway network (see Mobility Element Network Appendix), Community Plans, or Road Master Plans. Require the provision of sufficient right-of-way width, as specified in the County Public Road Standards and Community Trails Master Plan, to adequately accommodate all users, including transit riders, pedestrians, bicyclists, and equestrians.

**Policy M-3.2: Traffic Impact Mitigation.** Require development to contribute its fair share toward financing transportation facilities, including mitigating the associated direct and cumulative traffic impacts caused by their project on both the local and regional road networks. Transportation facilities include road networks and related transit, and pedestrian, bicycle and equestrian facilities.

**Policy M-4.2: Interconnected Local Roads.** Provide an interconnected and appropriately scaled local public road network in Village and Rural Villages that reinforces the compact development patterns promoted by the Land Use Element and individual community plans.

**Policy M-5.1: Regional Coordination.** Coordinate with regional planning agencies, transit agencies, and adjacent jurisdictions to provide a transportation system with the following:

- Sufficient capacity consistent with the County General Plan Land Use Map
- Travel choices, including multiple routes and modes of travel to provide the opportunity for reducing vehicle miles traveled
- Facilities sited and designed to be compatible with the differing scales, intensities, and characteristics of the unincorporated communities while still accommodating regional, community, and neighborhood travel demands
- Maximized efficiency to enhance connectivity between different modes of travel

**Policy M-5.2: Impact Mitigation for New Roadways and Improvements.** Coordinate with Caltrans to mitigate negative impacts from existing, expanded, or new State freeways or highways and to reduce impacts of road improvements and/or design modifications to State facilities on adjacent communities.

**Policy M-9.1: Transportation Systems Management.** Explore the provision of operational improvements (i.e., adding turn lanes, acceleration lanes, intersection improvements, etc.) that increase the effective vehicular capacity of the public road network prior to increasing the number of road lanes. Ensure operational improvements do not adversely impact the transit, bicycle, and pedestrian networks.

**Policy M-9.2: Transportation Demand Management.** Require large commercial and office development to use TDM programs to reduce single-occupant vehicle traffic generation, particularly during peak periods to maximize the capacity of existing or improved road facilities.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with unincorporated County traffic and LOS standards, but not to below a significant level.

**Tra-1.1** Coordinate with SANDAG and adjacent cities during updates to the RTP to identify a transportation network that maximizes efficiency, enhances connectivity between different modes of travel, and minimizes impacts when locating new freeways and State highways.

**Tra-1.2** Coordinate with Caltrans and adjacent jurisdictions during planning and design for improvements to the freeway and State highway network.

**Tra-1.3** Implement the County Public Road Standards during review of new development projects. Also revise the Public Road Standards to include a range of road types according to Regional Category context.

**Tra-1.4** Implement and revise as necessary the County Guidelines for Determining Significance for Transportation and Traffic to evaluate adverse environmental effects of projects and require mitigation when significant impacts are identified.

**Tra-1.5** Implement the Congestion Management Strategies identified in the Regional Transportation Plan and require large projects to mitigate impacts to State highways and freeways.

**Tra-1.6** Develop project review procedures to require large commercial and office development to use Transportation Demand Management Programs to reduce single-occupant vehicle traffic generation and to prepare and forward annual reports to the County on the effectiveness of the program.

**Tra-1.7** Implement the San Diego County TIF Ordinance, which defrays the costs of constructing planned transportation facilities necessary to accommodate increased traffic generated by future development.

### *2.15.6.2 Issue 2: Adjacent Cities Traffic and LOS Standards*

The following General Plan Update policies and mitigation measures (described further below) would reduce proposed project impacts related to adjacent cities traffic and LOS standards. However, the General Plan Update policies and mitigation measures would not fully reduce impacts to below a level of significance due to the magnitude of the traffic impacts. Therefore, other measures that would further reduce the proposed project's significant traffic impacts were considered and are discussed below.

**Infeasible Mitigation Measures**

The General Plan Update proposes a roadway system that would cause roadway segments in adjacent cities to operate at a LOS lower than acceptable levels established for their respective jurisdictions. Mitigation measures, such as requiring that all significantly impacted roadway segments undergo construction or expansion in order to increase the roadway LOS level, would

have the potential to minimize significant impacts to adjacent cities. Although not always the case, mitigation measures to improve adjacent jurisdictions roadways are generally considered infeasible because such improvements are outside the jurisdiction of the County. In some cases, such roadway improvements would be consistent with the plans of the affected cities. However, in many cases they have not been planned, either because the city does not desire that the road be improved or the plans have not yet been updated to reflect the level of future growth included in this analysis. In cases where a city desires that the impacts be mitigated, the County would coordinate with the city when significant traffic impacts to roads in adjacent cities are attributed to specific projects being processed in the County. These projects would be required to undertake mitigation, such as a fair share contribution, pursuant to city direction. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts to unincorporated adjacent cities traffic and LOS standards. However, without significant reductions in the overall growth of the County, impacts would still remain significant and unavoidable.

**General Plan Update Policies**

In addition to the policies identified above in Section 2.15.6.1, Issue 1: Unincorporated County Traffic and LOS Standards, the following General Plan Update policies would reduce impacts associated with adjacent cities traffic and LOS standards, but not to below a significant level.

**Policy LU-4.3: Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

**Policy M-4.6: Interjurisdictional Coordination.** Coordinate with adjacent jurisdictions so that roads within Spheres of Influence (SOIs) or that cross jurisdictional boundaries are designed to provide a consistent cross-section and capacity. To the extent practical, coordinate with adjacent jurisdictions to construct road improvements concurrently or sequentially to optimize and maintain road capacity.

**Mitigation Measures**

Mitigation measures Tra-1.1, Tra-1.2, Tra-1.3, Tra-1.4, Tra-1.5, and Tra-1.6 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with adjacent cities traffic and LOS standards, although not to below a level of significance.

**Tra-2.1** Establish coordination efforts with other jurisdictions when development projects will result in a significant impact on city roads. When available, use the applicable jurisdiction's significance thresholds and recommended mitigation measures to evaluate and mitigate impacts.

### *2.15.6.3 Issue 3: Rural Road Safety*

The proposed General Plan Update would allow increased land use densities in some areas of the unincorporated County that would have the potential to conflict with or alter the character of existing communities. General Plan Update policies and mitigation measures (described below), have been identified that would minimize potentially significant impacts to rural road safety.

Some mitigation measures have been identified that would reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan Update policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures were considered in attempting to reduce impacts to rural road safety to below a level of significance. However, the County has determined that these measures would be infeasible as described below; therefore, because they have been determined to be infeasible, these mitigation measures would not be implemented.

- Require all roadway facilities with horizontal and vertical curves that are sharper than existing standards to undergo construction improvements so that facilities would be compliant with existing safety standards. This measure would be considered infeasible due to related construction improvement costs and the fact that while some roadways may not be compliant with existing safety standards, they may be operating at acceptable LOS standards. In addition, some of the transportation facilities in the unincorporated County are within the jurisdiction of another agency, such as Caltrans. Additionally, implementation of this measure would require construction improvements to many roadways in the unincorporated backcountry area, where the majority of development would not be located under implementation of the proposed General Plan Update. Therefore, this mitigation measure would conflict with the proposed project's objective to provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns.

- All transportation facilities within the unincorporated County shall be retrofitted to provide safe bicycle and pedestrian movement corridors. This measure would conflict with the proposed project's objective to minimize public costs of infrastructure and services and correlate their timing with development. Additionally, this measure would be considered infeasible due to related construction improvement costs and the fact that improvements required by this mitigation measure may reduce the existing and future service level standards of the facilities. In addition, some of the transportation facilities in the unincorporated County are within the jurisdiction of another agency, such as Caltrans.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Section 4.0, Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with rural road safety as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated rural road safety, but not to below a significant level.

**Policy LU-2.8: Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

**Policy LU-6.10: Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

**Policy M-4.3: Rural Roads Compatible with Rural Character.** Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, utilize rural road design features (e.g., no curb and gutter improvements) to maintain community character. [See applicable community plan for possible relevant policies.]

**Policy M-4.4: Accommodate Emergency Vehicles.** Design and construct public and private roads to allow for necessary access for appropriately sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.

**Policy M-4.5: Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.

**Policy M-9.1: Transportation Systems Management.** Explore the provision of operational improvements (i.e., adding turn lanes, acceleration lanes, intersection improvements, etc.) that increase the effective vehicular capacity of the public road network prior to increasing the number of road lanes. Ensure operational improvements do not adversely impact the transit, bicycle, and pedestrian networks.

**Mitigation Measures**

Mitigation measures Tra-1.3, Tra-1.4, and 1.6 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measure would further reduce impacts associated with rural road safety, although not to below a significant level.

**Tra-3.1** Coordinate with SANDAG to obtain funding for operational improvements to State highways and freeways in the unincorporated area.

### *2.15.6.4 Issue 4: Emergency Access*

The following General Plan Update policies and mitigation measures would mitigate proposed project impacts related to emergency access to below a level of significance.

**General Plan Update Policies**

**Policy LU-2.8: Mitigation of Development Impacts.** Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety..

**Policy LU-6.10: Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

**Policy LU-12.2: Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

**Policy M-1.2: Interconnected Road Network.** Provide an interconnected public road network with multiple connections that improve efficiency by incorporating shorter routes between trip origin and destination, disperse traffic, reduce traffic congestion in specific areas, and provide both primary and secondary access/egress routes that support emergency services during fire and other emergencies.

**Policy M-3.3: Multiple Ingress and Egress.** Require development to provide multiple ingress/egress routes in conformance with State law, and local regulations.

**Policy M-4.4: Accommodate Emergency Vehicles.** Design and construct public and private roads to allow for necessary access for appropriately sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.

**Policy S-3.4: Service Availability.** Plan for development where fire and emergency services are available or planned.

**Policy S-3.5: Access Roads.** Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

**Policy S-14.1: Vehicular Access to Development.** Require development to provide vehicular connections that reduce response times and facilitate access for law enforcement personnel, whenever feasible.

**Mitigation Measures**

Mitigation measures Tra-1.3, Tra-1.4, and Tra-1.6 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with emergency access.

**Tra-4.1** Update Community Plans to identify local public road and community emergency evacuation route networks and pedestrian routes as appropriate.

**Tra-4.2** Implement the Building and Fire Codes to ensure there are adequate service levels in place associated with the construction of structures and their accessibility and egress.

**Tra-4.3** Implement and revise as necessary the County Guidelines for Determining Significance for Wildland Fire and Fire Protection to evaluate adverse environmental effects of projects. Require fire protection plans to ensure the requirements of the County Fire Code and other applicable regulations are being met.

**Tra-4.4** Implement and revise as necessary the Subdivision Ordinance to ensure that proposed subdivisions meet current design and accessibility standards.

### *2.15.6.5 Issue 5: Parking Capacity*

The following General Plan Update policies and mitigation measures would mitigate proposed project impacts related to parking capacity to below a level of significance.

**General Plan Update Policies**

**Policy M-8.6: Park and Ride Facilities.** Coordinate with SANDAG, Caltrans, and tribal governments to study transit connectivity and address improving regional opportunities for park-and-ride facilities and transit service to gaming facilities and surrounding rural areas to reduce congestion on rural roads.

**Policy M-9.3: Preferred Parking.** Encourage and provide incentives for commercial, office, and industrial development to provide preferred parking for carpools, vanpools, electric vehicles and flex cars. Encourage parking cash out programs to reimburse employees for the cost of "free" on-site parking to provide incentives to use alternate modes of travel and to reduce parking requirements.

**Policy M-9.4: Park-and-Ride Facilities.** Require developers of large projects to provide, or to contribute to, park-and-ride facilities near freeway interchanges and other appropriate locations that provide convenient access to congested regional arterials. Require park-and-ride facilities that are accessible to pedestrians and bicyclists, and include bicycle lockers and transit stops whenever feasible.

**Policy M-10.1: Parking Capacity.** Require new development to:

- Provide sufficient parking capacity for motor vehicles consistent with the project's location, use, and intensity
- Provide parking facilities for motorcycles and bicycles
- Provide staging areas for regional and community trails

**Policy M-10.2: Parking for Pedestrian Activity.** Require the design and placement of on-site automobile, motorcycle, and bicycle parking in Villages and Rural Villages that encourages pedestrian activity by providing a clear separation between vehicle and pedestrian areas and prohibit parking areas from restricting pedestrian circulation patterns.

**Policy M-10.3: Maximize On-street Parking.** Encourage the use of on-street parking in commercial and/or high-density residential town center areas to calm traffic and improve pedestrian interaction. Traffic operations and pedestrian safety must not be compromised.

**Policy M-10.4: Shared Parking.** Support town center plans when desired by the community that incorporate on-street and/or shared vehicular parking facilities to reduce on-site parking requirements.

**Mitigation Measures**

Mitigation measure Tra-1.4 as described above is applicable to this issue and is incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with parking capacity.

**Tra-5.1** When updating the Zoning Ordinance, review and revise parking regulations for senior housing and affordable housing, utilizing data from studies conducted for these groups.

**Tra-5.2** Prepare town center plans for village areas that incorporate shared parking facilities and include in Community Plans or other appropriate documents.

**Tra-5.3** Revise the Public Road Standards to include standards for the provision of parallel and diagonal on-street parking, according to Regional Category.

### *2.15.6.6 Issue 6: Alternative Transportation*

The following General Plan Update policies and mitigation measures would mitigate proposed project impacts related to alternative transportation to below a level of significance.

**General Plan Update Policies**

**Policy LU-5.1: Reduction of Vehicle Trips within Communities.** Incorporate a mixture of uses within Villages and Rural Villages and plan residential densities at a level that support multi-modal transportation, including walking, bicycling, and the use of public transit, when appropriate.

**Policy LU-5.4: Planning Support.** Undertake planning efforts that promote infill and redevelopment of uses that accommodate walking and biking within communities.

**Policy LU-5.5: Projects that Impede Non-Motorized Travel.** Ensure that development projects and road improvements do not impede bicycle and pedestrian access. Where impacts to existing planned routes would occur, ensure that impacts are mitigated and acceptable alternative routes are implemented. Examples include large parking areas that cannot be crossed by non-motorized vehicles, and new developments that block through access on existing or potential bicycle and pedestrian routes.

**Policy LU-9.8: Village Connectivity and Compatibility with Adjoining Areas.** Require new development within Villages to include road networks, pedestrian routes, and amenities that create or maintain connectivity; and site, building, and landscape design that is compatible with surrounding areas. [See applicable community plan for possible relevant policies.]

**Policy LU-11.6: Office Development.** Locate new office development complexes within village areas where services are available, in proximity to housing, and along primary vehicular arterials (ideally with transit access) with internal vehicular and pedestrian linkages that integrate the new development into the multi-modal transportation network where feasible.

**Policy M-3.1: Public Road Rights-of-Way.** Require development to dedicate right-of-way for public roads and other transportation routes identified in the Mobility Element roadway network (see Mobility Element Network Appendix), Community Plans, or Road Master Plans. Require the provision of sufficient right-of-way width, as specified in the County Public Road Standards and Community Trails Master Plan, to adequately accommodate all users, including transit riders, pedestrians, bicyclists, and equestrians.

**Policy M-3.2: Traffic Impact Mitigation.** Require development to contribute its fair share toward financing transportation facilities, including mitigating the associated direct and cumulative traffic impacts caused by their project on both the local and regional road networks. Transportation facilities include road networks and related transit, pedestrian, bicycle, and equestrian facilities.

**Policy M-4.3: Rural Roads Compatible with Rural Character.** Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, utilize rural road design features (e.g., no curb and gutter improvements) to maintain community character. [See applicable community plan for possible relevant policies.]

**Policy M-8.1: Maximize Transit Service Opportunities.** Coordinate with SANDAG, the CTSA, NCTD, and MTS to provide capital facilities and funding, where appropriate, to:

- Maximize opportunities for transit services in unincorporated communities
- Maximize the speed and efficiency of transit service through the development of transit priority treatments such as transit signal priority, transit queue jump lanes, and dedicated transit only lanes
- Provide for transit-dependent segments of the population, such as the disabled, seniors, low income, and children, where possible
- Reserve adequate rights-of-way to accommodate existing and planned transit facilities including bus stops

**Policy M-8.2: Transit Service to Key Community Facilities and Services.** Locate key county facilities, healthcare services, educational institutions, and other civic facilities so that they are accessible by transit in areas where transit is available. Require those facilities to be designed so that they are easily accessible by transit.

**Policy M-8.3: Transit Stops That Facilitate Ridership.** Coordinate with SANDAG, NCTD, and MTS to locate transit stops and facilities in areas that facilitate transit ridership, and designate such locations as part of planning efforts for town centers, transit nodes, and large-scale commercial or residential development projects. Ensure that the planning of town centers and village cores incorporates uses that support the use of transit, including multi-family residential and mixed-use transit–oriented development, when appropriate.

**Policy M-8.4: Transit Amenities.** Require transit stops that are accessible to pedestrians and bicyclists; and provide amenities for these users' convenience.

**Policy M-8.5: Improved Transit Facilities.** Require development projects, when appropriate, to improve existing nearby transit and/or park and ride facilities, including the provision of bicycle and pedestrian facilities, provisions for bus transit in coordination with NCTD and MTS as appropriate including, but not limited to, shelters, benches, boarding pads, and/or trash cans, and to provide safe, convenient, and attractive pedestrian connections.

**Policy M-8.6: Park and Ride Facilities.** Coordinate with SANDAG, Caltrans, and tribal governments to study transit connectivity and address improving regional opportunities for park-

and-ride facilities and transit service to gaming facilities and surrounding rural areas to reduce congestion on rural roads.

**Policy M-8.7: Inter-Regional Travel Modes.** Coordinate with SANDAG, Caltrans, and the California High-Speed Rail Authority, where appropriate, to identify alternative methods for inter-regional travel to serve the unincorporated County residents.

**Policy M-9.2: Transportation Demand Management.** Require large commercial and office development to use TDM programs to reduce single-occupant vehicle traffic generation, particularly during peak periods to maximize the capacity of existing or improved road facilities.

**Policy M-9.4: Park-and-Ride Facilities.** Require developers of large projects to provide, or to contribute to, park-and-ride facilities near freeway interchanges and other appropriate locations that provide convenient access to congested regional arterials. Require park-and-ride facilities that are accessible to pedestrians and bicyclists, and include bicycle lockers and transit stops whenever feasible.

**Policy M-11.1: Bicycle Facility Design.** Support regional and community-scaled planning of pedestrian and bicycle networks.

**Policy M-11.2: Bicycle and Pedestrian Facilities in Development.** Require development and town center plans in villages and rural villages to incorporate site design and on-site amenities for alternate modes of transportation, such as comprehensive bicycle and pedestrian networks and facilities. This will include both on-street facilities as well as off-street bikeways, to safely serve the full range of intended users. Also designate areas for transit facilities, where appropriate and coordinated with the transit service provider.

**Policy M-11.3: Bicycle Facilities on Roads Designated in the Mobility Element.** Maximize the provision of bicycle facilities on County Mobility Element roads in semi-rural and rural lands to provide a safe and continuous bicycle network in rural areas that can be used for recreation or transportation purposes, while retaining rural character.

**Policy M-11.4: Pedestrian and** Bicycle **Network Connectivity.** Require development in Villages and Rural Villages to provide comprehensive internal pedestrian and bicycle networks that connect to existing or planned adjacent community and countywide networks.

**Policy M-11.5: Funding for Bicycle Network Improvements.** Seek outside funding opportunities for bicycle and pedestrian network improvement projects, particularly those that provide safe and continuous pedestrian and bicycle routes to schools, town centers, parks, park-and-ride facilities, and major transit stops.

**Policy M-11.6: Coordination for Bicycle and Pedestrian Facility Connectivity.** Coordinate with Caltrans to provide alternate connections for past, existing, or planned bicycle and pedestrian routes that were or would be severed by State freeway and highway projects that intersect pathways or divide communities. Caltrans endeavors to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility. Caltrans is committed to working with the County to complete bicycle and pedestrian

**Policy M-11.7: Bicycle and Pedestrian Facility Design.** Promote pedestrian and bicycle facility standards for facility design that are tailored to a variety of urban and rural contexts according to their location within or outside a village or rural village.

**Mitigation Measures**

Mitigation measures Tra-5.1 and Tra-5.2 as described above are applicable to this issue and are incorporated here by reference. In addition, the following mitigation measures would further reduce impacts associated with alternative transportation.

**Tra-6.1** During Community Plan updates, establish policies and design guidelines that encourage commercial centers in compact walkable configurations and discourage "strip" commercial development.

**Tra-6.2** Establish comprehensive planning principles for transit nodes such as the SPRINTER Station located in North County Metro.

**Tra-6.3** Locate County facilities near transit facilities, whenever feasible.

**Tra-6.4** Coordinate with SANDAG, Caltrans, and tribal governments to maximize opportunities to locate park and ride facilities.

**Tra-6.5** Coordinate with SANDAG, Caltrans, and transit agencies to expand the mass transit opportunities in the unincorporated county and to review the location and design of transit stops. Establish a DPLU transit coordinator to ensure land use issues are being addressed.

**Tra-6.6** Review the improvement plans for railroad facilities in the unincorporated County.

**Tra-6.7** Implement and revise the County Bicycle Transportation Plan every five years, or as necessary, to identify a long range County bicycle network and qualify for State or other funding sources. Coordinate revisions to the County Bicycle Transportation Plan with the County Trails Program.

**Tra-6.8** Coordinate with SANDAG in the development of a Regional Bicycle Plan to ensure consistency with County transportation plans. Coordinate revisions to the SANDAG Regional Bicycle Plan with the County Trails Program.

**Tra-6.9** Implement and revise as necessary the County Trails Program for trail development and management. Implement and revise as necessary the Community Trails Master Plan, which incorporates adopted individual community trail and pathway plans, based on community goals, policies, and implementation criteria.

## 2.15.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### 2.15.7.1 Issue 1: Unincorporated County Traffic and Level of Service Standards

Implementation of the proposed General Plan Update would result in a total of 136 deficient roadway segments throughout the unincorporated County (approximately 31 State highway segments and 105 Mobility Element segments). This would be considered a significant impact. Cumulative projects would also have a significant cumulative impact to deficient roadway segments and the proposed project's contribution would be cumulatively considerable.

The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project traffic impacts in the unincorporated County; however, not to below a level of significance. Therefore, direct and cumulative impacts would be significant and unavoidable.

### 2.15.7.2 Issue 2: Adjacent Cities Traffic and Level of Service Standards

Implementation of the proposed General Plan Update would result in 34 roadway segments in adjacent cities that would exceed the LOS standard established by the applicable jurisdiction. Therefore, this would be considered a significant impact. Cumulative projects would also result in a significant cumulative impact to adjacent cities traffic and LOS levels and the proposed project's contribution would be cumulatively considerable.

The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts related to adjacent cities traffic and LOS standards; however, not to below a level of significance. Therefore, direct and cumulative project impacts would be significant and unavoidable.

### 2.15.7.3 Issue 3: Rural Road Safety

Implementation of the proposed General Plan would result in the adoption of a Mobility Element network that includes existing roadways with horizontal and vertical curves that are sharper than existing standards. Additionally, the proposed General Plan Update would pose an increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns. Implementation of the proposed General Plan Update would also have the potential to result in hazards from at-grade rail crossings. Therefore, this would be considered a potentially significant impact. Cumulative projects would also result in a significant cumulative impact to road safety and the proposed project's contribution would be cumulatively considerable. The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts related to rural road safety; however, not to below a level of significance. Therefore, direct and cumulative project impacts would be significant and unavoidable.

### 2.15.7.4 Issue 4: Emergency Access

Under the proposed General Plan Update, existing inadequate roadway widths, dead end roads, one-way roads, and gated communities would continue to occur in the unincorporated County, all of which have the potential to impair emergency access. Therefore, a potentially

significant impact would occur. The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate direct project impacts related to emergency access to below a level of significance. Additionally, cumulative project impacts would be less than significant.

### *2.15.7.5 Issue 5: Parking Capacity*

Implementation of the proposed General Plan Update would designate land uses throughout the unincorporated County that would require the development of parking facilities. All future development of parking facilities associated with these land uses would be required to follow existing parking standards and requirements, such as the County's Zoning Ordinance and roadway standards. However, the land uses proposed under the General Plan Update would require modifications to existing County parking regulations. This is considered to be potentially significant impact. The proposed General Plan Update policies and mitigation measures, in addition to compliance with existing County parking regulations, would mitigate proposed project impacts related to parking capacity to below a level of significance. Additionally, cumulative impacts would be less than significant.

### *2.15.7.6 Issue 6: Alternative Transportation*

Implementation of the proposed General Plan Update would create provisions for alternative modes of transportation, including bike lanes, bus stops, trails, and sidewalks. Many policies proposed in the General Plan Update would require coordination between the County and the agencies responsible for public transportation planning; however, existing alternative transportation plans and policies would require modification to be consistent with the goals and policies contained in the General Plan Update. This is considered to be potentially significant impact. The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate proposed project impacts related to alternative transportation to below a level of significance. Additionally, cumulative impacts would be less than significant.

## Table 2.15-1. Level of Service (LOS) Definitions

| LOS Category | Definition of Operation |
|---|---|
| A | This LOS represents a completely free-flow conditions, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences. |
| B | This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver. |
| C | At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles. |
| D | At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating. |
| E | This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F. |
| F | At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues forms behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages. |

Source: Wilson and Company 2009a

## Table 2.15-2. Caltrans District 11 State Highway Segment LOS Definitions

| LOS Category | V/C | Congestion/Delay | Traffic Description |
|---|---|---|---|
| A | <0.30 | None | Free flow. |
| B | 0.30-0.49 | None | Free to stable flow, light to moderate volumes. |
| C | 0.50-0.70 | None to minimal | Stable flow, moderate volumes, freedom to maneuver noticeably restricted. |
| D | 0.71-0.88[(1)] | Minimal to substantial | Approaches unstable flow, heavy volumes, very limited freedom to maneuver. |
| E | 0.89-0.99 | Significant | Extremely unstable flow, maneuverability and psychological comfort extremely poor. |
| F | ≥1.00 | Considerable | Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle. |

[(1)] SANDAG modified the V/C threshold at LOS D from 0.88 to 0.84 for the County General Plan Update model forecast.
Source: Wilson and Company 2009a

## Table 2.15-3. County of San Diego Current Roadway Segment Daily Capacity and LOS Standards

| Circulation Element Roadway Classification | Level of Service (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Expressway (6–Lane) | 36,000 | 54,000 | 70,000 | 86,000 | 108,000 |
| Prime Arterial (6-Lane) | 22,200 | 37,000 | 44,600 | 50,000 | 57,000 |
| Major Road (4-Lane) | 14,800 | 24,700 | 29,600 | 33,400 | 37,000 |
| Collector (4-Lane) | 13,700 | 22,800 | 27,400 | 30,800 | 34,200 |
| Town Collector (3–Lane) | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| Light Collector (2-Lane) | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| Rural Collector (2-Lane) | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| Rural Light Collector (2-Lane) | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| Rural Mountain Road (2-Lane) | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| Recreation Parkway (2-Lane) | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |

Source: Wilson and Company 2009a

## Table 2.15-4. Current County Public Roadway Classifications

| Circulation Element Roadway Classification | Number of Travel Lanes (Median Width) | Right of Way Width (feet)[2] | Design Speed (mph) | Threshold Capacity (ADT) | Parkway Width (feet) |
|---|---|---|---|---|---|
| **Expressway[1]:** Expressways have grade-separated intersections and provide inter-regional travel. | 6 (34 feet) | 146 | 65 | 86,000 | 10 |
| **Prime Arterial:** Prime Arterials are six-lane roads with at-grade intersections and they provide intraregional travel. | 6 (14 feet) | 122 | 65 | 50,000 | 10 |
| **Major Road:** Major Roads are four-lane roads that accommodate shorter trips at intermediate speeds and serve as feeders to arterials. | 4 (14 feet) | 98 | 55 | 33,400 | 10 |
| **Collector:** Collector Roads are four-lane undivided roads that serve as feeders to Major Roads and Prime Arterials. | 4 (none) | 84 | 55 | 30,800 | 10 |
| **Town Collector:** Town Collector Roads provide access to adjacent properties with a center turn lane. | 2 (12 feet) | 74 | 40 | 13,500 | 10 |
| **Light Collector:** Light Collector Roads are two-lane collector roads where access is generally controlled. | 2 (none) | 60 | 45 | 10,900 | 10 |
| **Rural Collector:** Rural Collector Road access in controlled by requiring new development to provide common driveways, access roads and, on occasion, signalized intersections. Residential lots are required to be served from interior residential roads. | 2 (none) | 84 | 40 | 10,900 | 22 |
| **Rural Light Collector:** Similar to Light Collector Roads, Rural Light Collector Roads are two-lane collector roads where access is generally controlled. | 2 (none) | 60 | 40 | 10,900 | 10 |
| **Recreational Parkway:** Recreational Parkways provide for recreational travel through an area of scenic of recreational interest. There are no mapped recreational parkways in the County. | 2 (none) | 100 | 25 | 10,900 | 30 |
| **Rural Mountain:** Similar to Light Collector Roads, Rural Mountain Roads are two-lane collector roads where access is generally controlled. | 2 (none) | 100 | 40 | 10,900 | 30 |

(1) Allows for both at-grade and grade-separated intersections
(2) Does not include allowances for bicycle lanes or additional turn lanes
Source: DPW 1999

## Table 2.15-5. Existing Conditions Roadway Lane Miles by Subregion and Community Planning Area

| CPA/Subregion | Lane Miles | | | |
|---|---|---|---|---|
| | State Highway | ME Roads | Local Public Roads | Total |
| **Northwestern Communities** | | | | |
| Bonsall | 9 | 70 | 9 | 88 |
| Fallbrook | 13 | 133 | 31 | 177 |
| North County Metro | 11 | 156 | 6 | 173 |
| Pala/Pauma Valley | 48 | 39 | 3 | 91 |
| Pendleton/De Luz | - | 29 | 2 | 31 |
| Rainbow | - | 18 | - | 18 |
| San Dieguito | - | 103 | 40 | 143 |
| Valley Center | - | 124 | 40 | 164 |
| **Northwestern Subtotal** | **81** | **672** | **131** | **884** |
| **Southwestern Communities** | | | | |
| Alpine | - | 100 | 27 | 127 |
| County Islands | - | 5 | - | 5 |
| Crest/Dehesa | - | 51 | 4 | 55 |
| Jamul/Dulzura | 40 | 118 | 30 | 188 |
| Lakeside | 22 | 141 | 35 | 198 |
| Otay | - | 17 | 2 | 19 |
| Ramona | 56 | 131 | 35 | 222 |
| Spring Valley | - | 60 | 30 | 90 |
| Sweetwater | - | 29 | 6 | 35 |
| Valle de Oro | 11 | 79 | 33 | 123 |
| **Southwestern Subtotal** | **129** | **731** | **202** | **1,062** |
| **Eastern Communities** | | | | |
| Central Mountain | 35 | 134 | 46 | 215 |
| Desert | 51 | 245 | 12 | 308 |
| Julian | - | 54 | 7 | 61 |
| Mountain Empire | 60 | 195 | 12 | 267 |
| North Mountain | 98 | 159 | 5 | 262 |
| **Eastern Subtotal** | **244** | **787** | **82** | **1,113** |
| **Total** | **454** | **2,190** | **415** | **3,059** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-6. Existing Conditions Roadway Lane Miles by LOS

| CPA/Subregion | Lane Miles | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOS A-C | | | LOS D | | | LOS E | | | LOS F | | |
| | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total |
| **Northwestern Communities** | | | | | | | | | | | | |
| Bonsall | - | 53 | 53 | - | 5 | 5 | - | 11 | 11 | 9 | 1 | 10 |
| Fallbrook | - | 103 | 103 | 5 | 10 | 15 | 4 | 13 | 17 | 4 | 8 | 12 |
| North County Metro | 1 | 114 | 115 | 10 | 20 | 30 | - | 14 | 14 | - | 8 | 8 |
| Pala/Pauma Valley | 40 | 35 | 75 | - | 2 | 2 | - | 2 | 2 | 8 | - | 8 |
| Pendleton/De Luz | - | 17 | 17 | - | 0 | 0 | - | 1 | 1 | - | 11 | 11 |
| Rainbow | - | 18 | 18 | - | - | - | - | - | - | - | - | - |
| San Dieguito | - | 60 | 60 | - | 10 | 10 | - | 10 | 10 | - | 22 | 22 |
| Valley Center | - | 83 | 83 | - | 20 | 20 | - | 14 | 14 | - | 7 | 7 |
| **Northwestern Subtotal** | **41** | **483** | **524** | **15** | **67** | **82** | **4** | **65** | **69** | **21** | **57** | **78** |
| **Southwestern Communities** | | | | | | | | | | | | |
| Alpine | - | 81 | 81 | - | 7 | 7 | - | 5 | 5 | - | 7 | 7 |
| County Islands | - | 3 | 3 | - | 1 | 1 | - | - | - | - | 1 | 1 |
| Crest/Dehesa | - | 30 | 30 | - | 9 | 9 | - | 10 | 10 | - | 1 | 1 |
| Jamul/Dulzura | 23 | 114 | 137 | 10 | 1 | 11 | - | 3 | 3 | 6 | - | 6 |
| Lakeside | - | 103 | 103 | - | 10 | 10 | 4 | 13 | 17 | 18 | 15 | 33 |
| Otay | - | 17 | 17 | - | - | - | - | - | - | - | - | - |
| Ramona | 33 | 104 | 137 | 7 | 3 | 10 | 4 | 17 | 21 | 12 | 7 | 19 |
| Spring Valley | - | 47 | 47 | - | 6 | 6 | - | 6 | 6 | - | 2 | 2 |
| Sweetwater | - | 8 | 8 | - | 5 | 5 | - | 9 | 9 | - | 6 | 6 |
| Valle de Oro | 2 | 49 | 51 | - | 12 | 12 | - | 12 | 12 | 9 | 6 | 15 |
| **Southwestern Subtotal** | **58** | **556** | **614** | **17** | **54** | **71** | **8** | **75** | **83** | **45** | **45** | **90** |
| **Eastern Communities** | | | | | | | | | | | | |
| Central Mountain | 35 | 133 | 168 | - | 1 | 1 | - | - | - | - | - | - |
| Desert | 51 | 245 | 296 | - | 0 | 0 | - | 0 | 0 | - | - | - |
| Julian | - | 54 | 54 | - | - | - | - | - | - | - | - | - |
| Mountain Empire | 60 | 195 | 255 | - | - | - | - | - | - | - | - | - |
| North Mountain | 98 | 159 | 257 | - | - | - | - | - | - | - | - | - |
| **Eastern Subtotal** | **244** | **786** | **1,030** | **-** | **1** | **1** | **-** | **0** | **0** | **-** | **-** | **-** |
| **Total** | **343** | **1,825** | **2,168** | **32** | **122** | **154** | **12** | **140** | **152** | **66** | **102** | **168** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-7. Vehicle Miles Traveled (VMT) and Average Daily Traffic (ADT) Existing Conditions (2007) vs. Proposed Project (2030)

| CPA/Subregion | Existing Conditions VMT | Proposed Project VMT | Existing Conditions ADT | Proposed Project ADT |
|---|---|---|---|---|
| **Northwestern Communities** | | | | |
| Bonsall | 1,179,857 | 2,087,790 | 63,438 | 115,560 |
| Fallbrook | 1,356,481 | 2,373,498 | 286,243 | 459,754 |
| North County Metro | 1,645,889 | 2,815,934 | 203,177 | 396,980 |
| Pala/Pauma Valley | 270,007 | 420,730 | 61,484 | 107,264 |
| Pendleton/De Luz | 2,734,946 | 3,799,101 | 153,761 | 155,076 |
| Rainbow | 422,169 | 811,618 | 10,128 | 49,016 |
| San Dieguito | 503,845 | 721,692 | 149,828 | 234,306 |
| Valley Center | 402,685 | 814,483 | 104,633 | 325,170 |
| **Northwestern Subtotal** | **8,515,879** | **13,844,846** | **1,032,692** | **1,843,126** |
| **Southwestern Communities** | | | | |
| Alpine | 745,350 | 1,150,694 | 214,643 | 361,102 |
| County Islands | 320,638 | 388,723 | 13,443 | 15,842 |
| Crest/Dehesa | 151,969 | 205,005 | 48,729 | 55,946 |
| Jamul/Dulzura | 315,670 | 584,604 | 56,987 | 102,875 |
| Lakeside | 1,483,082 | 2,183,047 | 436,719 | 583,180 |
| Otay | 24,779 | 461,039 | 7,496 | 364,897 |
| Ramona | 685,606 | 868,316 | 304,668 | 445,737 |
| Spring Valley | 870,515 | 1,168,540 | 336,273 | 415,986 |
| Sweetwater | 571,218 | 860,577 | 59,150 | 69,807 |
| Valle de Oro | 568,211 | 637,346 | 383,205 | 406,282 |
| **Southwestern Subtotal** | **5,737,038** | **8,507,893** | **1,861,313** | **2,821,654** |
| **Eastern Communities** | | | | |
| Central Mountain | 559,722 | 852,064 | 36,942 | 43,403 |
| Desert | 161,005 | 323,572 | 72,198 | 205,656 |
| Julian | 66,945 | 95,203 | 30,945 | 42,737 |
| Mountain Empire | 623,737 | 1,305,685 | 77,193 | 236,005 |
| North Mountain | 257,823 | 441,628 | 31,568 | 44,824 |
| **Eastern Subtotal** | **1,669,232** | **3,018,152** | **248,846** | **572,625** |
| **Total** | **15,922,149** | **25,370,891** | **3,142,851** | **5,237,405** |

Source: Wilson and Company 2009a

## Table 2.15-8. Rail Lines in San Diego County

| Rail Line | Length (miles) | Extent in San Diego County | Freight Operator | Other Operations | Right of Way Owner |
|---|---|---|---|---|---|
| **Los Angeles - San Luis Obispo- San Diego Corridor (San Diego County Portions)** | | | | | |
| Oceanside - San Diego | 62 | Orange County line - Downtown San Diego | BNSF | Amtrak, COASTER & Metrolink | NCTD & MTS |
| Oceanside - Escondido | 21 | Oceanside - Escondido | BNSF | SPRINTER | NCTD |
| **San Diego & Arizona Eastern Railway** | | | | | |
| Main Line | 16 | Downtown San Diego - International Border (San Ysidro) | SDIV | San Diego Trolley | MTS |
| La Mesa Branch | 16 | Downtown San Diego - El Cajon | SDIV | San Diego Trolley | MTS |
| Coronado Branch | 7 | National City - Otay Mesa | SDIV | San Diego Trolley | MTS |
| Desert Line | 70 | Tecate USA - Imperial County line | Carrizo Gorge Railway | Pacific Southwest Railway Museum | MTS |

Sources: County of San Diego 2007a

## Table 2.15-9. SANTEC/ITE Guidelines Circulation Element Roadway Classifications, Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Expressway (6-lane) | < 30,000 | < 42,000 | < 60,000 | **< 70,000** | < 80,000 |
| Prime Arterial (6-lane) | < 25,000 | < 35,000 | < 50,000 | **< 55,000** | < 60,000 |
| Major Arterial (6-lane, divided) | < 20,000 | < 28,000 | < 40,000 | **< 45,000** | < 50,000 |
| Major Arterial (4-lane, divided) | < 15,000 | < 21,000 | < 30,000 | **< 35,000** | < 40,000 |
| Secondary Arterial / Collector (4-lane with center lane) | < 10,000 | < 14,000 | < 20,000 | **< 25,000** | < 30,000 |
| Collector (4-lane w/o center lane) | < 5,000 | < 7,000 | < 10,000 | **< 13,000** | < 15,000 |
| Collector (2-lane w/ continuous left-turn lane) | | | | | |
| Collector (2-lane no fronting property) | < 4,000 | < 5,500 | < 7,500 | **< 9,000** | < 10,000 |
| Collector (2-lane w/ commercial fronting) | < 2,500 | < 3,500 | < 5,000 | **< 6,500** | < 8,000 |
| Collector (2-lane multi-family) | | | | | |
| Sub-Collector (2-lane single-family) | - | - | < 2,200 | - | - |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

## Table 2.15-10. City of Chula Vista Circulation Element Roadway Classifications Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Expressway (7 or 8-lane) | 52,500 | 61,300 | **70,000** | 78,800 | 87,500 |
| Prime Arterial (6-lane) | 37,500 | 43,800 | **50,000** | 56,300 | 62,500 |
| Major Street (6-lane) | 30,000 | 35,000 | **40,000** | 45,000 | 50,000 |
| Major Street (4-lane) | 22,500 | 26,300 | **30,000** | 33,800 | 37,500 |
| Town Center Arterial | 37,500 | 43,800 | **50,000** | 56,300 | 62,500 |
| Class I Collector (4-lane) | 16,500 | 19,300 | **22,000** | 24,800 | 27,500 |
| Class II Collector (3-lane) | 9,000 | 10,500 | **12,000** | 13,500 | 15,000 |
| Class III Collector (2-lane) | 5,600 | 6,600 | **7,500** | 8,400 | 9,400 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

## Table 2.15-11. City of Encinitas Circulation Element Roadway Classifications Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | |
|---|---|---|---|
| | A - C | D | E |
| Prime Arterial (6-lane) | < 46,000 | **< 51,200** | < 57,000 |
| Prime Arterial (6-lane) - Augmented | < 53,000 | **< 60,000** | < 66,000 |
| Major Roadway (4-lane) | < 28,200 | **< 31,600** | < 35,200 |
| Major Roadway (4-lane) - Augmented | < 36,300 | **< 41,000** | < 45,400 |
| Collector Roadway (4-lane) | < 26,000 | **< 29,200** | < 32,400 |
| Local Roadway (2-lane) | < 11,200 | **< 12,600** | < 14,000 |
| Local Roadway (2-lane) - Augmented | < 16,000 | **< 18,000** | < 20,000 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

## Table 2.15-12. City of Escondido Circulation Element Roadway Classifications Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | | | | |
|---|---|---|---|---|---|---|
| | A | B | C | Mid D | D- | E |
| Prime Arterial (6-Lane, no parking) | 15,000 | 30,000 | 42,000 | **46,500** | 51,000 | 60,000 |
| Prime Arterial (8-Lane, no parking) | 17,500 | 35,000 | 49,000 | **54,250** | 59,500 | 70,000 |
| Major Road (4-Lane, no parking) | 14,800 | 24,700 | 29,600 | **31,500** | 33,400 | 37,000 |
| Major Road (6-Lane, no parking) | 12,500 | 25,000 | 35,000 | **38,750** | 42,500 | 50,000 |
| Collector (4-Lane, no parking) | 13,700 | 22,800 | 27,400 | **29,100** | 30,800 | 34,200 |
| Collector (4-Lane, w/ parking) | 5,500 | 10,000 | 14,000 | **15,500** | 17,000 | 20,000 |
| Local Collector (2 Lane, no parking) | 4,000 | 7,500 | 10,000 | **11,250** | 12,500 | 15,000 |
| Rural Collector (2-Lane, w/ parking) | 2,500 | 5,000 | 7,000 | **7,750** | 8,500 | 10,000 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

### Table 2.15-13. City of Oceanside Circulation Element Roadway Classifications Capacity and LOS Standards

| Functional Classification | LOS (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Prime Arterial (6-lane) | < 36,000 | < 42,000 | < 48,000 | **< 54,000** | < 60,000 |
| Major Arterial (6-lane, divided) | < 30,000 | < 35,000 | < 40,000 | **< 45,000** | < 50,000 |
| Major Arterial (5-lane, divided) | < 27,000 | < 31,500 | < 36,000 | **< 40,500** | < 45,000 |
| Major Arterial (4-lane, divided) | < 24,000 | < 28,000 | < 32,000 | **< 36,000** | < 40,000 |
| Secondary Arterial (4-lane, undivided) | < 13,700 | < 22,800 | < 27,400 | **< 30,800** | < 34,200 |
| Collector Industrial (2-lane) | < 6,000 | < 7,000 | < 8,000 | **< 9,000** | < 10,000 |
| Collector (2-lane) | < 5,250 | < 6,125 | < 7,000 | **< 7,875** | < 8,750 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

### Table 2.15-14. City of San Marcos Circulation Element Roadway Classifications Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Prime Arterial (6-lane) | <25,000 | <35,000 | <42,000 | **<51,000** | <60,000 |
| Major Arterial (6-lane, divided) | <20,000 | <28,000 | <35,000 | **<41,000** | <50,000 |
| Major Arterial (4-lane, divided) | < 15,000 | < 21,000 | <28,000 | **<35,000** | <40,000 |
| Secondary Arterial (4-lane, undivided) | < 10,000 | < 14,000 | <21,000 | **<24,500** | <30,000 |
| Collector (2-lane) | <5,000 | <7,000 | <10,000 | **<12,500** | <15,000 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

### Table 2.15-15. City of Vista Circulation Element Roadway Classifications Capacity and LOS Standards

| Roadway Functional Classification | LOS (in ADT) | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| Prime Arterial (6-lane) | < 36,000 | < 42,000 | < 48,000 | **< 54,000** | < 60,000 |
| Major Arterial (4-lane, divided) | < 24,000 | < 28,000 | < 32,000 | **< 36,000** | < 40,000 |
| Secondary Arterial (4-lane, undivided) | < 15,000 | <17,500 | < 20,000 | **< 22,500** | < 25,000 |
| Minor Arterial (2-lane, undivided) | < 9,000 | < 10,500 | < 12,500 | **< 15,000** | < 17,000 |
| Collector (4-lane w/no center lane) | < 5,500 | < 7,000 | < 10,000 | **< 13,000** | < 15,000 |
| Collector (2-lane w/ continuous left-turn lane) | < 5,500 | < 7,000 | < 10,000 | **< 13,000** | < 15,000 |
| Light Collector (2-lane) | < 5,300 | < 6,200 | < 7,000 | **< 7,900** | < 8,800 |

Note: **Bold** numbers indicate the ADT thresholds for acceptable LOS.
Source: Wilson and Company 2009b

## Table 2.15-16. Existing Conditions Roadway LOS by Jurisdiction

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| **Carlsbad** | | | | | |
| Cannon Rd | I-5 NB Ramps to Paseo Del Norte | 4-lane Major Arterial | 40,000 | 22,200 | C |
| | Paseo Del Norte to Car Country Dr | 4-lane Major Arterial | 40,000 | 8,100 | A |
| | Car Country Dr to Faraday Ave | 4-lane Major Arterial | 40,000 | 14,200 | A |
| | Faraday Ave to El Camino Real | 4-lane Major Arterial | 40,000 | 9,100 | A |
| | El Camino Real to College Blvd | 2-lane Collector w/ CLTL | 15,000 | 9,100 | C |
| | Leisure Village Dr to Shadowridge Dr | 4-lane Major Arterial | 40,000 | 4,100 | A |
| | Shadowridge Dr to Lake Blvd | 4-lane Major Arterial | 40,000 | 9,700 | A |
| | Lake Blvd to Melrose Dr | 4-lane Major Arterial | 40,000 | 15,700 | B |
| | Melrose Dr to Mar Vista Dr | 4-lane Major Arterial | 40,000 | 400 | A |
| **Chula Vista** | | | | | |
| Heritage Rd | Main Street to Chula Vista City Limit | 6-lane Prime Arterial | 62,500 | 14,800 | A |
| La Media Rd | Telegraph Canyon Rd to Palomar St | 6-lane Prime Arterial | 62,500 | 19,200 | A |
| | Palomar St to Olympic Pkwy | 6-lane Prime Arterial | 62,500 | 3,900 | A |
| | Olympic Pkwy to Santa Venetia St | 6-lane Prime Arterial | 62,500 | 1,200 | A |
| | Santa Venetia St to Birch Rd | 6-lane Prime Arterial | 62,500 | 1,900 | A |
| Proctor Valley Rd | Northwoods Dr to Chula Vista City Limit | 2-lane Class III Collector | 9,400 | 700 | A |
| Otay Lakes Rd | Wueste Rd to Chula Vista City Limit | 2-lane Class III Collector | 9,400 | 3,200 | A |
| Willow St | Sweetwater Rd to Bonita Rd | 2-lane Class III Collector | 9,400 | 17,000 | **F** |
| Bonita Rd | Bonita Glen Dr to I-805 SB Ramps | 4-lane Major Street | 37,500 | 34,300 | **E** |
| | I-805 SB Ramps to I-805 NB Ramps | 4-lane Major Street | 37,500 | 54,000 | **F** |
| | I-805 NB Ramps to Plaza Bonita Rd | 4-lane Major Street | 37,500 | 42,400 | **F** |
| | Plaza Bonita Rd to Willow St | 4-lane Major Street | 37,500 | 30,300 | **D** |
| | Willow St to Chula Vista City Limit | 4-lane Major Street | 37,500 | 32,500 | **D** |
| **Del Mar** | | | | | |
| Via de la Valle | Highway 101 to Jimmy Durante Blvd | 4-lane Major Arterial | 40,000 | 24,300 | C |
| **El Cajon** | | | | | |
| Jamacha Rd | Main St to Granite Hill Dr | 4-lane Major Arterial | 40,000 | 35,000 | **E** |
| | Granite Hill Dr to Grove Rd | 4-lane Major Arterial | 40,000 | 28,000 | C |
| Washington Ave | El Cajon Blvd to 1st St | 4-lane Major Arterial | 40,000 | 24,500 | C |
| | 1st St to Jamacha Rd | 4-lane Major Arterial | 40,000 | 22,000 | C |
| | Jamacha Rd to 3rd St | 4-lane Major Arterial | 40,000 | 14,000 | A |
| | 3rd St to Wichita Ave | 4-lane Major Arterial | 40,000 | 16,400 | B |
| | Wichita Ave to Granite Hill Dr | 4-lane Major Arterial | 40,000 | 12,400 | A |
| Main St | Magnolia Ave to Ballantyne St | 4-lane Major Arterial | 40,000 | 14,600 | A |
| | Ballantyne St to Mollison Ave | 4-lane Major Arterial | 40,000 | 15,500 | B |
| | Mollison Ave to 1st St | 4-lane Major Arterial | 40,000 | 19,600 | B |
| | 1st St to Orlando St | 4-lane Major Arterial | 40,000 | 16,500 | B |
| | Orlando St to Madison Ave | 4-lane Major Arterial | 40,000 | 20,400 | B |
| | Madison Ave to I-8 EB Ramps | 4-lane Major Arterial | 40,000 | 11,700 | A |

**Table 2.15-16 (Continued)**

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| Avocado Blvd | Main St to Washington Ave | 4-lane Collector (no center lane) | 15,000 | 10,600 | D |
| | Washington Ave to Chase Ave | 4-lane Collector (no center lane) | 15,000 | 17,300 | **F** |
| Bradley Ave | Cuyamaca St to Marshall Ave | 4-lane Major Arterial | 40,000 | 9,300 | A |
| | Marshall Ave to Johnson Ave | 4-lane Major Arterial | 40,000 | 20,800 | B |
| | Johnson Ave to Magnolia Ave | 4-lane Major Arterial | 40,000 | 15,900 | B |
| | Magnolia Ave to Graves Ave | 2-lane Collector | 10,000 | 19,000 | **F** |
| | Graves Ave to 1st St | 2-lane Collector | 10,000 | 12,600 | **F** |
| 2nd St | Pepper Dr to Persimmon Ave | 4-lane Major Arterial | 40,000 | 24,300 | C |
| | Persimmon Ave to Broadway | 4-lane Major Arterial | 40,000 | 32,000 | D |
| | Broadway to I-8 WB Ramps | 4-lane Major Arterial | 40,000 | 33,500 | D |
| | I-8 WB Ramps to Main St | 6-lane Major Arterial | 50,000 | 40,500 | D |
| Chase Ave | El Cajon Blvd to Mollison Ave | 4-lane Major Arterial | 40,000 | 24,400 | C |
| | Mollison Ave to Rancho Valle Ct | 4-lane Major Arterial | 40,000 | 18,400 | B |
| Greenfield Dr | I-8 EB Ramps to Bermuda Ln | 2-lane Collector | 10,000 | 24,500 | **F** |
| | Bermuda Ln to La Cresta Rd | 2-lane Collector | 10,000 | 21,000 | **F** |
| | La Cresta Rd to Madison Ave | 2-lane Collector | 10,000 | 10,400 | **F** |
| | Madison Ave to Vista Del Escuela | 2-lane Collector w/ CLTL | 15,000 | 2,600 | A |
| | Vista Del Escuela to Orchard Ave | 2-lane Collector w/ CLTL | 15,000 | 500 | A |
| **Encinitas** | | | | | |
| El Camino Real | Encinitas Blvd to Santa Fe Dr | 6-lane Prime Arterial | 57,000 | 37,100 | A - C |
| | Santa Fe Dr to Manchester Ave | 4-lane Major Arterial - Augmented | 45,400 | 26,500 | A - C |
| El Camino Del Norte | Rancho Santa Fe Rd to Eastern City Limit | 2-lane Local Roadway | 14,000 | 7,300 | A - C |
| Encinitas Blvd | El Camino Real to Manchester Ave | 4-lane Major Roadway | 35,200 | 36,200 | **F** |
| Manchester Ave | I-5 NB Ramps to El Camino Real | 4-lane Major Roadway - Augmented | 45,400 | 31,600 | A - C |
| | El Camino Real to Encinitas Blvd | 2-lane Local Roadway | 14,000 | 8,300 | A - C |
| Rancho Santa Fe Rd | Manchester Ave to Eastern City Limit | 2-lane Local Roadway - Augmented | 20,000 | 22,700 | **F** |
| **Escondido** | | | | | |
| Centre City Pkwy | Country Club Ln to El Norte Pkwy | 4-lane Major Road | 37,000 | 15,400 | B |
| | El Norte Pkwy to SR-78 WB Ramps | 4-lane Major Road | 37,000 | 29,200 | C |
| | SR-78 WB Ramps to Mission Ave | 4-lane Major Road | 37,000 | 34,500 | **E** |
| | Mission Ave to Washington Ave | 4-lane Major Road | 37,000 | 24,900 | C |
| | Washington Ave to 5th Ave | 4-lane Major Road | 37,000 | 23,800 | B |
| | 5th Ave to 13th Ave | 4-lane Major Road | 37,000 | 26,100 | C |
| | 13th Ave to Felicita Ave | 4-lane Major Road | 37,000 | 23,900 | B |
| | Felicita Ave to Centre City Rd | 4-lane Major Road | 37,000 | 30,000 | Mid D |
| | Centre City Rd to Brotherton Rd | 4-lane Major Road | 37,000 | 39,400 | **F** |
| | Brotherton Rd to Citracado Pkwy | 4-lane Major Road | 37,000 | 32,600 | **D-** |

**Table 2.15-16 (Continued)**

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| Felicita Ave/17th Ave | San Pasqual Valley Rd to Juniper St | 2-lane Local Collector | 15,000 | 13,900 | **E** |
| | Juniper St to Escondido Blvd | 2-lane Local Collector | 15,000 | 18,200 | **F** |
| | Escondido Blvd to Centre City Pkwy | 4-lane Collector | 34,200 | 27,000 | C |
| | Centre City Pkwy to Quince St | 2-lane Local Collector | 15,000 | 23,600 | **F** |
| | Quince St to Citracado Pkwy | 2-lane Local Collector | 15,000 | 14,500 | **E** |
| Via Rancho Pkwy | Felicita Ave to Quiet Hills Dr | 4-lane Major Road | 37,000 | 15,900 | B |
| | Quiet Hills Dr to I-15 SB Ramps | 6-lane Major Road | 50,000 | 16,800 | B |
| | I-15 SB Ramps to I-15 NB Ramps | 6-lane Prime Arterial | 60,000 | 34,100 | C |
| | I-15 NB Ramps to San Pasqual Rd | 6-lane Prime Arterial | 60,000 | 32,800 | C |
| Bear Valley Pkwy | San Pasqual Rd to Mary Ln | 4-lane Major Road | 37,000 | 27,900 | C |
| | Mary Ln to Las Palmas Ave | 4-lane Major Road | 37,000 | 23,000 | B |
| | Las Palmas Ave to Sunset Dr | 2-lane Local Collector | 15,000 | 23,200 | **F** |
| | Sunset Dr to El Dorado Dr | 2-lane Local Collector | 15,000 | 18,800 | **F** |
| | El Dorado Dr to San Pasqual Valley Rd | 2-lane Local Collector | 15,000 | 27,300 | **F** |
| | San Pasqual Valley Rd to Boyle Ave | 2-lane Local Collector | 15,000 | 22,600 | **F** |
| | Boyle Ave to Hayden Dr | 4-lane Major Road | 37,000 | 18,000 | B |
| | Hayden Dr to Valley Pkwy | 2-lane Local Collector | 15,000 | 17,300 | **F** |
| Valley Pkwy | Bear Valley Pkwy to Wanek Rd | 4-lane Major Road | 37,000 | 29,800 | Mid D |
| | Wanek Rd to Washington Ave | 4-lane Major Road | 37,000 | 26,000 | C |
| | Washington Ave to Lake Wohlford Rd | 2-lane Local Collector | 15,000 | 34,200 | **F** |
| San Pasqual Valley Rd | Washington Ave to Birch Ave | 2-lane Local Collector | 15,000 | 21,200 | **F** |
| San Pasqual Rd | Bear Valley Pkwy to Ryan Dr | 4-lane Major Road | 37,000 | 11,300 | A |
| Broadway | North Ave to Country Club Ln | 4-lane Collector | 34,200 | 6,100 | A |
| | Country Club Ln to Bahia Ln | 2-lane Local Collector | 15,000 | 9,000 | C |
| | Bahia Ln to El Norte Pkwy | 4-lane Collector | 34,200 | 15,900 | B |
| **La Mesa** | | | | | |
| Bancroft Dr | Grossmont Blvd to Campo Rd | 2-lane Collector | 10,000 | 7,800 | D |
| | Campo Rd to SR-94 WB Ramps | 2-lane Collector | 10,000 | 11,600 | **F** |
| Lemon Ave | La Mesa Blvd to Jackson Dr | 2-lane Collector | 10,000 | 1,700 | A |
| | Jackson Dr to Marguerita Ln | 2-lane Collector | 10,000 | 12,400 | **F** |
| | Marguerita Ln to Alto Dr | 2-lane Collector | 10,000 | 7,700 | D |
| | Alto Dr to Lake Helix Dr | 2-lane Collector | 10,000 | 4,500 | B |
| | Lake Helix Dr to Fuerte Dr | 2-lane Collector | 10,000 | 1,500 | A |
| Fuerte Dr | Grossmont Dr to Avocado Blvd | 2-lane Collector | 10,000 | 15,700 | **F** |
| Campo Rd | SR-125 to Bancroft Dr | 2-lane Collector | 10,000 | 10,000 | **F** |
| | Bancroft Dr to Camino Paz | 2-lane Collector | 10,000 | 17,000 | **F** |
| | Camino Paz to Kenwood Rd | 2-lane Collector | 10,000 | 12,000 | **F** |
| | Kenwood Rd to Conrad Dr | 4-lane Collector (no center lane) | 15,000 | 42,500 | **F** |
| | Conrad Dr to Granada Ave | 4-lane Collector (no center lane) | 15,000 | 20,300 | **F** |
| | Granada Ave to Sweetwater Spring Blvd | 4-lane Collector (no center lane) | 15,000 | 13,100 | **E** |

**Table 2.15-16 (Continued)**

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| **Lemon Grove** | | | | | |
| Troy St | Palm St to Sweetwater Rd | 4-lane Collector | 30,000 | 9,000 | A |
| Sweetwater Rd | Broadway to Tyler St | 4-lane Collector (no center lane) | 15,000 | 18,000 | **F** |
| | Tyler St to Jamacha Rd | 4-lane Collector | 30,000 | 17,000 | C |
| **National City** | | | | | |
| 30th St | National City Blvd to Highland Ave | 4-lane Major Arterial | 40,000 | 7,000 | A |
| | Highland Ave to N 2nd Ave | 4-lane Major Arterial | 40,000 | 29,000 | C |
| Euclid Ave | Plaza Blvd to Sweetwater Rd | 4-lane Collector (no center lane) | 15,000 | 8,500 | C |
| Plaza Blvd | National City Blvd to Highland Ave | 4-lane Collector (no center lane) | 15,000 | 11,300 | D |
| | Highland Ave to Euclid Ave | 4-lane Major Arterial | 40,000 | 23,600 | C |
| **Oceanside** | | | | | |
| Melrose Dr | SR-76 to Old Ranch Rd | 6-lane Major Arterial | 50,000 | 9,500 | A |
| | Old Ranch Rd to Spur Ave | 4-lane Major Arterial | 40,000 | 2,300 | A |
| | Santa Fe Ave to Sagewood Rd | 4-lane Major Arterial | 40,000 | 11,700 | A |
| | Sagewood Rd to Oceanside Blvd | 4-lane Major Arterial | 40,000 | 13,300 | A |
| North Santa Fe Ave | SR-76 to Melrose Dr | 4-lane Major Arterial | 40,000 | 23,100 | A |
| **Poway** | | | | | |
| Poway Rd | Spring Hurst Dr to Iola Way | 6-lane Major Arterial | 50,000 | 36,900 | C |
| | Iola Way to Oak Knoll Rd | 4-lane Major Arterial | 40,000 | 27,300 | C |
| | Oak Knoll Rd to Pomerado Rd | 4-lane Major Arterial | 40,000 | 36,000 | **E** |
| | Pomerado Rd to Carriage Rd | 4-lane Major Arterial | 40,000 | 33,500 | D |
| | Carriage Rd to Community Rd | 4-lane Major Arterial | 40,000 | 36,500 | **E** |
| | Community Rd to Midland Rd | 5-lane Major Arterial | 45,000 | 35,400 | D |
| | Midland Rd to Ann O Reno Ln | 4-lane Major Arterial | 40,000 | 24,500 | C |
| | Ann O Reno Ln to Garden Rd | 4-lane Major Arterial | 40,000 | 12,500 | A |
| | Garden Rd to Silver Ridge Rd | 2-lane Collector w/ CLTL | 15,000 | 17,000 | **F** |
| | Silver Ridge Rd to Espola Rd | 2-lane Collector w/ CLTL | 15,000 | 12,900 | D |
| | Espola Rd to SR-67 | 2-lane Collector | 10,000 | 18,800 | **F** |
| Scripps Poway Pkwy | Springbrook Dr to Community Rd | 6-lane Prime Arterial | 60,000 | 49,400 | C |
| | Community Rd to Danielson St | 6-lane Prime Arterial | 60,000 | 19,600 | A |
| | Danielson St to SR-67 | 4-lane Major Arterial | 40,000 | 19,200 | B |
| Twin Peaks Rd | Pomerado Rd to Ted William Pkwy | 4-lane Major Arterial | 40,000 | 37,700 | **E** |
| | Ted William Pkwy to Community Rd | 4-lane Major Arterial | 40,000 | 44,000 | **F** |
| | Community Rd to Tierra Bonita Rd | 4-lane Major Arterial | 40,000 | 29,000 | C |
| | Tierra Bonita Rd to Espola Rd | 4-lane Major Arterial | 40,000 | 24,200 | C |
| Espola Rd | Twin Peaks to Poway Rd | 2-lane Collector | 10,000 | 18,000 | **F** |
| Ted Williams Pkwy | Highland Ranch Rd to Pomerado Rd | 6-lane Prime Arterial | 60,000 | 31,200 | B |
| | Pomerado Rd to Twin Peaks Rd | 4-lane Major Arterial | 40,000 | 18,800 | B |
| **San Diego** | | | | | |
| Camino del Norte | Camino San Bernardo to I-15 | 6-lane Prime Arterial | 60,000 | 35,900 | C |
| Rancho Bernardo Rd | Via Del Campo to W. Bernardo Dr | 4-lane Major Arterial | 40,000 | 23,700 | C |
| | W. Bernardo Dr to I-15 | 4-lane Major Arterial | 40,000 | 47,400 | **F** |

**Table 2.15-16 (Continued)**

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| Scripps Poway Pkwy | I-15 to Spring Canyon Rd | 6-lane Prime Arterial | 60,000 | 52,900 | D |
| | Spring Canyon Rd to Springbrook Dr | 4-lane Major Arterial | 40,000 | 25,900 | C |
| Via de la Valle | Jimmy Durante Blvd to I-15 NB Ramps | 4-lane Major Arterial | 40,000 | 31,200 | D |
| | I-15 NB Ramps to San Andres Dr | 4-lane Major Arterial | 40,000 | 37,700 | **E** |
| | San Andres Dr to El Camino Real | 2-lane Collector | 10,000 | 22,500 | **F** |
| Airway Rd | Michael Faraday Dr to SR-905 | 2-lane Collector | 9,000 | 6,600 | C |
| Siempre Viva Rd | La Media Rd to SR-905 | 6-lane Major Arterial | 50,000 | 10,900 | A |
| | SR-905 to Enrico Fermi Dr | 4-lane Major Arterial | 40,000 | 19,400 | B |
| **San Marcos** | | | | | |
| Las Posas Rd | Borden Rd to Avenida Azul | 4-lane Major Arterial | 40,000 | 6,300 | A |
| | Avenida Azul to Mission Rd | 6-lane Major Arterial | 50,000 | 8,900 | A |
| | Mission Rd to SR-78 WB Ramps | 6-lane Major Arterial | 50,000 | 24,300 | B |
| | SR-78 WB Ramps to Grand Ave | 6-lane Major Arterial | 50,000 | 37,700 | D |
| | Grand Ave to Vista Dr | 4-lane Secondary Arterial | 30,000 | 15,900 | C |
| | Vista Dr to Stone Dr | 4-lane Secondary Arterial | 30,000 | 12,100 | B |
| | Stone Dr to San Marcos Blvd | 4-lane Secondary Arterial | 30,000 | 9,900 | A |
| Twin Oaks Valley Rd | Deer Springs Rd to Buena Creek Rd | 2-lane Collector | 15,000 | 16,800 | **F** |
| | Buena Creek Rd to Olive St | 2-lane Collector | 15,000 | 11,800 | D |
| La Cieniega Rd | Twin Oak Valley Rd to Mulberry Dr | 2-lane Collector | 15,000 | 5,100 | B |
| Mulberry Dr | Olive St to La Cieniega Rd | 2-lane Collector | 15,000 | 1,800 | A |
| **Santee** | | | | | |
| Mast Blvd | Medina Dr to Halberns Blvd | 4-lane Major Arterial | 40,000 | 21,000 | C |
| | Halberns Blvd to Shirley Garden | 4-lane Major Arterial | 40,000 | 22,000 | C |
| | Shirley Garden to Magnolia Ave | 4-lane Secondary Arterial | 30,000 | 21,700 | D |
| | Magnolia Ave to Los Ranchitos Rd | 2-lane Collector | 10,000 | 7,300 | C |
| | west of Pine Grove | 4-lane Major Arterial | 40,000 | 5,000 | A |
| | Pine Grove to Riverford Rd | 4-lane Major Arterial | 40,000 | 7,000 | A |
| El Nopal | Cuyamaca St to Magnolia Ave | 2-lane Collector | 10,000 | 4,500 | B |
| | Magnolia Ave to Aquila Dr | 2-lane Collector w/ CLTL | 15,000 | 8,900 | C |
| Woodside Ave | Magnolia Ave to SR-67 | 4-lane Major Arterial | 40,000 | 32,000 | D |
| | SR-67 to Shadow Hill Rd | 2-lane Collector w/ CLTL | 15,000 | 16,000 | **F** |
| | Shadow Hill Rd to Northcode Rd | 2-lane Collector w/ CLTL | 15,000 | 7,000 | C |
| | Northcode Rd to Security Way | 2-lane Collector | 10,000 | 5,000 | B |
| | Security Way to SR-67 | 2-lane Collector | 10,000 | 10,000 | **F** |
| | SR-67 to Riverford Rd | 2-lane Collector | 10,000 | 21,800 | **F** |
| **Solana Beach** | | | | | |
| Highway 101 | Ocean St to Lomas Santa Fe Dr | 4-lane Major Arterial | 40,000 | 29,900 | C |
| | Lomas Santa Fe Dr to Via De la Valle | 4-lane Major Arterial | 40,000 | 19,900 | B |
| Lomas Santa Fe Dr | Highway 101 to Stevens Ave | 4-lane Major Arterial | 40,000 | 11,900 | A |
| | Stevens Ave to Solana Hills Dr | 4-lane Major Arterial | 40,000 | 17,800 | B |
| | Solana Hills Dr to I-5 SB Ramps | 4-lane Major Arterial | 40,000 | 31,700 | D |
| | I-5 SB Ramps to Via Mil Cumbres | 4-lane Major Arterial | 40,000 | 28,300 | C |
| | Via Mil Cumbres to Highland Dr | 4-lane Major Arterial | 40,000 | 8,900 | A |

**Table 2.15-16 (Continued)**

| Roadway | Segment | Cross-Section | Capacity (LOS E) | ADT | LOS |
|---|---|---|---|---|---|
| Steven Ave | Lomas Santa Fe Dr to Academy Dr | 4-lane Collector | 30,000 | 13,000 | B |
| | Academy Dr to La Colonia Park | 2-lane Collector | 10,000 | 11,900 | **F** |
| | La Colonia Park to Nardo Ave | 4-lane Collector | 30,000 | 11,900 | B |
| | Nardo Ave to Valley Ave | 4-lane Collector | 30,000 | 11,000 | B |
| Valley Ave | Stevens Ave to Via De la Valle | 4-lane Collector (no center lane) | 15,000 | 13,000 | **F** |
| Highland Dr | El Camino Real to San Andres Dr | 2-lane Collector | 10,000 | 5,000 | B |
| **Vista** | | | | | |
| Sycamore Ave | SR-78 EB Ramps to Hibiscus Way | 6-Lane Prime Arterial | 60,000 | 48,900 | D |
| Monte Vista Dr | South Santa Fe Ave to Cypress Ave | 2-lane Light Collector | 8,800 | 8,700 | **E** |
| | Cypress Ave to Foothill Dr | 2-lane Light Collector | 8,800 | 4,800 | A |

General Notes:
**Bold** letters indicate substandard LOS.
CLTL = Continuous left-turn lane.
Note 1: The segment of Siempre Viva Road between La Media Rd and Avenida Costa Brava/Melksee Street is not currently constructed to a 6-lane major arterial, and would have a LOS E capacity of 22,500 ADT, resulting in an acceptable LOS B along this segment.
Source: Wilson and Company 2009a

## Table 2.15-17. Interregional / International Crossings in the Unincorporated County

| Crossing | Roadway | CPA or Subregion | ADTs (000)[1] | | Percent Increase (2000-2030) |
|---|---|---|---|---|---|
| | | | 2000 | 2030 | |
| Riverside County | I-15 | Rainbow | 96 | 247 | 157% |
| Imperial County | I-8 | Mountain Empire | 11 | 18 | 64% |
| Orange County[2] | I-5 | Pendleton/De Luz | 104 | 176 | 69% |
| Tecate, Mexico | SR-94 | Mountain Empire | 6 | 9 | 50% |
| Otay Mesa (2010) | SR-11 | Otay | N/A | 44 | N/A |
| Jacumba (under consideration) | N/A | Mountain Empire | N/A | 1 or 6[3] | N/A |

(1) Average daily vehicle trips based on General Plan Update traffic modeling conducted by SANDAG
(2) Based on average daily vehicle trips from Camp Pendleton into Oceanside
(3) Year 2030 projections: Tecate port of entry open to all vehicles (1) or open except commercial vehicles (6)
Source: County of San Diego 2007a

## Table 2.15-18. Proposed Project Roadway Lane Miles by Community

| CPA/Subregion | Lane Miles | | | |
|---|---|---|---|---|
| | State Highway | ME Roads | Local Public Roads | Total |
| **Northwestern Communities** | | | | |
| Bonsall | 17 | 83 | 22 | 122 |
| Fallbrook | 26 | 151 | 50 | 227 |
| North County Metro | 15 | 201 | 35 | 251 |
| Pala/Pauma Valley | 60 | 46 | 3 | 109 |
| Pendleton/De Luz | - | 58 | 2 | 60 |
| Rainbow | - | 19 | - | 19 |
| San Dieguito | - | 106 | 54 | 160 |
| Valley Center | - | 185 | 36 | 221 |
| **Northwestern Subtotal** | 118 | 849 | 202 | 1,169 |
| **Southwestern Communities** | | | | |
| Alpine | - | 109 | 33 | 142 |
| County Islands | - | 4 | - | 4 |
| Crest/Dehesa | - | 63 | 9 | 72 |
| Jamul/Dulzura | 55 | 100 | 60 | 215 |
| Lakeside | 32 | 181 | 53 | 266 |
| Otay | - | 61 | 7 | 68 |
| Ramona | 65 | 152 | 52 | 269 |
| Spring Valley | - | 62 | 32 | 94 |
| Sweetwater | - | 28 | 8 | 36 |
| Valle de Oro | 11 | 97 | 34 | 142 |
| **Southwestern Subtotal** | 163 | 857 | 288 | 1,308 |
| **Eastern Communities** | | | | |
| Central Mountain | 43 | 146 | 66 | 255 |
| Desert | 60 | 266 | 8 | 334 |
| Julian | 35 | 25 | 1 | 61 |
| Mountain Empire | 71 | 144 | 76 | 291 |
| North Mountain | 124 | 120 | 62 | 306 |
| **Eastern Subtotal** | 333 | 701 | 213 | 1,247 |
| **Total** | **614** | **2,407** | **703** | **3,724** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-19. Proposed Roadway Segment Daily Capacity and LOS Standards

| No. [1] | Travel Lanes | Design Speed | Road Classification | Level of Service (in ADT) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | A | B | C | D | E |
| 6.1 | 6 | 65 mph | Expressway | 36,000 | 54,000 | 70,000 | 86,000 | 108,000 |
| 6.2 | 6 | 65 mph | Prime Arterial | 22,200 | 37,000 | 44,600 | 50,000 | 57,000 |
| 4.1A | 4 | 55 mph | Major Road with Raised Median | 14,800 | 24,700 | 29,600 | 33,400 | 37,000 |
| 4.1B | | | Major Road with Intermittent Turn Lanes | 13,700 | 22,800 | 27,400 | 30,800 | 34,200 |
| 4.2A | 4 | 40 mph | Boulevard with Raised Median | 5,700 | 12,500 | 19,000 | 27,000 | 32,500 |
| 4.2B | | | Boulevard with Intermittent Turn Lane | 5,000 | 10,900 | 17,200 | 25,000 | 30,000 |
| 2.1A | 2 | 45 mph | Community Collector with Raised Median | 2,800 | 6,500 | 10,300 | 15,000 | 20,500 |
| 2.1B | | | Community Collector with Continuous Turn Lane | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.1C | | | Community Collector with Intermittent Turn Lane | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.1D | | | Community Collector with Improvement Options | 3,000 | 6,000 | 9,500 | 13,500-15,000 | 19,000 |
| 2.1E | | | Community Collector | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| 2.2A | 2 | 40 mph | Light Collector with Raised Median | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.2B | | | Light Collector with Continuous Turn Lane | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.2C | | | Light Collector with Intermittent Turn Lanes | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.2D | | | Light Collector with Improvement Options | 3,000 | 6,000 | 9,500 | 13,500 | 19,000 |
| 2.2E | | | Light Collector | 1,900 | 4,100 | 7,100 | 10,900 | 16,200 |
| 2.2F | | | Light Collector with Reduced Shoulder | 1,550 | 3,300 | 5,600 | 8,700 | 16,200 |
| 2.3A | 2 | 35 mph | Minor Collector with Raised Median | 1,400 | 3,000 | 5,100 | 8,000 | 12,900 |
| 2.3B | | | Minor Collector with Intermittent Turn Lane | 1,400 | 3,000 | 5,100 | 8,000 | 12,900 |
| 2.3C | | | Minor Collector | 1,350 | 2,700 | 4,500 | 7,000 | 11,300 |

[1] No. refers to road classification number. These numbers also correlate to the County's Public Road Standards, which provides additional criteria for these road types, such as design speed and threshold capacity.

Note: The LOS thresholds for Mobility Element road classifications reflect those in place when EIR traffic modeling was conducted. Some LOS thresholds are subject to change with the revision to the County Public Road Standards (The Standards). However, the 2009 revisions to The Standards will not change the LOS D operational threshold of any road classification. The standard of LOS D for Mobility Element roads and the LOS D operational thresholds were adopted by the Board of Supervisors.

Source: Wilson and Company 2009a

## Table 2.15-20. Proposed Roadway Lane Miles by LOS

| CPA/ Subregion | Lane Miles | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOS A-C | | | LOS D | | | LOS E | | | LOS F | | |
| | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total |
| **Northwestern Communities** | | | | | | | | | | | | |
| Bonsall | 4 | 73 | 77 | 1 | 4 | 5 | 3 | 7 | 10 | 9 | - | 9 |
| Fallbrook | 23 | 79 | 102 | 2 | 46 | 48 | - | 23 | 23 | 1 | 4 | 5 |
| North County Metro | 15 | 155 | 170 | - | 35 | 35 | 0 | 6 | 6 | - | 5 | 5 |
| Pala/Pauma Valley | 49 | 36 | 85 | 6 | 8 | 14 | 2 | 2 | 4 | 4 | - | 4 |
| Pendleton/De Luz | - | 42 | 42 | - | 15 | 15 | - | - | - | - | - | - |
| Rainbow | - | 13 | 13 | - | 3 | 3 | - | 1 | 1 | - | 2 | 2 |
| San Dieguito | - | 52 | 52 | - | 19 | 19 | - | 11 | 11 | - | 24 | 24 |
| Valley Center | - | 111 | 111 | - | 54 | 54 | - | 11 | 11 | - | 14 | 14 |
| **Northwestern Subtotal** | 91 | 561 | 652 | 9 | 184 | 193 | 5 | 61 | 66 | 14 | 49 | 63 |
| **Southwestern Communities** | | | | | | | | | | | | |
| Alpine | - | 80 | 80 | - | 13 | 13 | - | 9 | 9 | - | 7 | 7 |
| County Islands | - | 1 | 1 | - | - | - | - | 3 | 3 | - | - | - |
| Crest/Dehesa | - | 53 | 53 | - | 10 | 10 | - | - | - | - | - | - |
| Jamul/Dulzura | 13 | 94 | 107 | 23 | 3 | 26 | 4 | 3 | 7 | 14 | - | 14 |
| Lakeside | 19 | 132 | 151 | 3 | 26 | 29 | 3 | 8 | 11 | 6 | 14 | 20 |
| Otay | - | 48 | 48 | - | 13 | 13 | - | - | - | - | 0 | 0 |
| Ramona | 54 | 115 | 169 | 9 | 29 | 38 | 1 | 4 | 5 | 2 | 4 | 6 |
| Spring Valley | - | 35 | 35 | - | 20 | 20 | - | 4 | 4 | - | 3 | 3 |
| Sweetwater | - | 17 | 17 | - | 9 | 9 | - | 1 | 1 | - | - | - |
| Valle de Oro | 5 | 74 | 79 | 0 | 14 | 14 | 5 | 5 | 10 | - | 5 | 5 |
| **Southwestern Subtotal** | 91 | 649 | 740 | 35 | 137 | 172 | 13 | 37 | 50 | 22 | 33 | 55 |
| **Eastern Communities** | | | | | | | | | | | | |
| Central Mountain | 43 | 143 | 186 | - | 3 | 3 | - | - | - | - | - | - |
| Desert | 60 | 255 | 316 | - | 6 | 6 | - | 4 | 4 | - | 1 | 1 |
| Julian | 35 | 25 | 60 | - | - | - | - | - | - | - | - | - |
| Mountain Empire | 44 | 142 | 185 | 13 | 3 | 16 | 5 | - | 5 | 9 | - | 9 |
| North Mountain | 124 | 110 | 234 | - | 10 | 10 | - | - | - | - | - | - |
| **Eastern Subtotal** | 306 | 675 | 981 | 13 | 22 | 35 | 5 | 4 | 9 | 9 | 1 | 10 |
| **Total** | **488** | **1,885** | **2,373** | **57** | **343** | **400** | **23** | **102** | **125** | **45** | **83** | **128** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-21. Proposed Project Deficient Facilities (LOS E/F) by Community

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [(1)] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| **Northwestern Communities** | | | | | | | |
| Bonsall | State Hwy | Mission Road/SR-76 | Oceanside/County Boundary to Vista Way | 4-Ln State Highway | 58,800 | F | 6-Ln State Highway |
| | | Mission Road/SR-76 | Vista Way to Holly Lane | 4-Ln State Highway | 45,600 | E | 6-Ln State Highway |
| | | Mission Road/SR-76 | Holly Lane to North River Road | 4-Ln State Highway | 45,600 | E | 6-Ln State Highway |
| | | Mission Road/SR-76 | North River Road to Via Montellano | 4-Ln State Highway | 56,300 | F | 6-Ln State Highway |
| | | Mission Road/SR-76 | Via Montellano to Mission Road | 4-Ln State Highway | 57,800 | F | 6-Ln State Highway |
| | ME Road | Old Highway 395 | Dublin (W) Road to West Lilac Road | 2.1D | 16,300 | E | 4.2B |
| | | Old Highway 395 | West Lilac Road to I-15 South Bound Ramps | 2.1D | 15,900 | E | 4.2B |
| Fallbrook | State Hwy | Pala Road/SR-76 | Old Highway 395 to I-15 SB Ramps | 4-Ln State Highway | 37,700 | F | 6-Ln State Highway |
| | ME Road | Alvarado Street | Main Avenue to Olive Avenue | 2.2C | 14,600 | E | 2.1D |
| | | Del Luz Road | Dougherty Street to Mission Road | 2.2C | 14,200 | E | 2.1D |
| | | Fallbrook Street | Main Avenue to Olive Avenue | 2.2B | 14,800 | E | 2.1D |
| | | Mission Road | Vine Street to Brandon Road | 2.2B | 15,000 | E | 2.1D |
| | | Mission Road | Hamilton Lane to Live Oak Park Road | 4.2B | 29,400 | E | 4.1B |
| | | Mission Road | Live Oak Park Road to Old Hwy 395 | 4.2B | 34,200 | F | 4.1A |
| | | Mission Road | Old Highway 395 to I-15 South Bound Ramps | 4.1B | 41,300 | F | 6.2 |
| | | Mission Road | I-15 South Bound Ramps to I-15 North Bound Ramps | 4.1B | 34,000 | E | 6.2 |
| | | Old Highway 395 | White Lilac Road to Mission Road | 2.1D | 21,100 | F | 4.2B |
| | | Old Highway 395 | Mission Road to Reche Road | 2.1A | 19,400 | E | 4.2B |
| | | Old Highway 395 | Reche Road to Stewart Canyon Road | 2.1A | 22,200 | F | 4.2B |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [(1)] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| Fallbrook | ME Road | Old Highway 395 | Stewart Canyon Road to Pala Mesa Drive | 2.1A | 17,400 | E | 4.2B |
| | | Old Highway 395 | Pala Road to Dublin (E) Road | 2.1D | 14,800 | E | 2.1A |
| | | Old Highway 395 | Dublin (E) Road to Dublin (W) Road | 2.1D | 16,900 | F | 4.2B |
| | | Pala Mesa Drive | Daisy Lane to Old Highway 395 | 2.2F | 11,000 | E | 2.2C |
| | | Pala Mesa Drive | Old Highway 395 to Pankey Road | 2.2F | 17,400 | F | 4.2B |
| | | Pankey Road | Pala Mesa Drive to Pala Road | 2.1A | 15,800 | E | 4.2B |
| | | Reche Road | Fallbrook Street to Green Canyon Road | 2.2C | 14,100 | E | 2.1D |
| | | Pepper Tree Lane | Mission Road to Woodbrook Lane | 2.2E | 14,300 | E | 2.1D |
| North County Metro | ME Road | Deer Springs Road | Mesa Rock Road to I-15 North Bound Ramps | 6.2 | 53,700 | E | 6.1 |
| | | Deer Springs Road | I-15 North Bound Ramps to North Centre City Parkway | 4.1B | 46,500 | F | 6.2 |
| | | Mountain Meadow Road | North Broadway to Alps Lane | 2.1D | 20,900 | F | 4.2B |
| | | Bear Valley Parkway | Eldorado Drive to San Pasqual Valley Road | 4.1A | 36,000 | E | 6.2 |
| Pala / Pauma | State Hwy | Pala Road/SR-76 | Pala Del Norte Road to 6th Street | 2-Ln State Highway | 24,300 | F | 4-Ln State Highway |
| | | Pala Road/SR-76 | 6th Street to Pala Temecula Road | 2-Ln State Highway | 22,400 | E | 4-Ln State Highway |
| | | Pala Road/SR-76 | Pala Temecula Road to 1st Street | 2-Ln State Highway | 22,800 | F | 4-Ln State Highway |
| | | Pala Road/SR-76 | Pala Mission Road to Lilac Road | 2-Ln State Highway | 17,000 | E | 4-Ln State Highway |
| | ME Road | Valley Center Road | Omish Road to Paradise Creek | 2.1D | 15,500 | E | 4.2B |
| Rainbow | ME Road | Old Highway 395 | 5$^{th}$ Street to Rainbow Valley Road | 2.2D | 19,200 | F | 4.2B |
| | | Old Highway 395 | Rainbow Valley Road to New Rainbow Valley Road | 2.1D | 20,500 | F | 4.2B |
| | | Old Highway 395 | New Rainbow Valley Road to White Lilac | 2.1D | 20,800 | F | 4.2B |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [(1)] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| San Dieguito | ME Road | Del Dios Highway | Via Rancho Parkway to El Camino Del Norte | 2.1D | 31,200 | F | 4.1A |
| | | Paseo Delicias | El Camino del Norte to El Montevideo | 2.2B | 24,100 | F | 4.2B |
| | | Paseo Delicias | El Montevideo to Via De La Valle | 2.2B | 23,600 | F | 4.2B |
| | | Paseo Delicias | Via De La Valle to La Granada | 2.2A | 14,900 | E | 2.1A |
| | | El Camino Del Norte | Aliso Canyon Road to Del Dios Hwy/Paseo Delicias | 2.2F | 13,500 | E | 2.2C |
| | | La Bajada | El Mirlo to Los Morros | 2.2F | 25,800 | F | 4.2A |
| | | La Granada | Los Morros to Rambla De Las Flores | 2.2F | 25,800 | F | 4.2A |
| | | La Granada | Rambla De Las Flores to Avenida De Acacias | 2.2F | 15,200 | E | 4.2B |
| | | La Granada | Avenida De Acacias to Paseo Delicias | 2.2F | 17,100 | F | 4.2B |
| | | Linea Del Cielo | El Camino Real to Rambla De Las Flores | 2.2F | 11,200 | E | 2.2C |
| | | Via De la Valle | El Camino Real to Las Palomas | 2.1E | 24,500 | F | 4.2B |
| | | Via De la Valle | Las Palomas to Calzada Del Bosque | 2.1E | 25,400 | F | 4.2A |
| | | Via De la Valle | Calzada Del Bosque to Via de Santa Fe | 2.1E | 25,400 | F | 4.2A |
| | | Via De la Valle | Via de Santa Fe to Paseo Delicias | 2.1E | 16,100 | E | 4.2B |
| | | El Apajo | Villa De La Valle to Via De Santa Fe | 2.1A | 16,800 | E | 4.2B |
| | | San Dieguito Road | El Apajo to Circa Oriente | 2.1A | 17,500 | E | 4.2B |
| Valley Center | ME Road | Mountain Meadow Road/ Mirar De Valle Road | Alps Ln to Burnt Mountain Road | 2.1D | 27,600 | F | 4.1B |
| | | Mountain Meadow Road/ Mirar De Valle Road | Burnt Mountain to Red Ironbark Drive | 2.1D | 27,600 | F | 4.1B |
| | | Mountain Meadow Road/ Mirar De Valle Road | Red Ironbark Drive to Cypress Ridge | 2.1D | 27,600 | F | 4.1B |
| | | Lilac Road | Cypress Ridge to Valley Center Road | 4.2A | 38,100 | F | 6.2 |
| | | Valley Center Road | Sunday Drive to Lilac Road | 4.2A | 28,400 | E | 4.1B |
| | | Valley Center Road | Lilac Road to Canyon Road | 4.1A | 38,600 | F | 6.2 |
| | | Valley Center Road | Canyon Road to New Southern Pass | 4.1A | 38,600 | F | 6.2 |
| | | Valley Center Road | New Southern Pass to Miller Road | 4.1A | 38,600 | F | 6.2 |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [1] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| Valley Center | ME Road | Valley Center Road | Miller Road to Indian Creek Road | 4.2A | 38,600 | F | 6.2 |
| | | Valley Center Road | Highpoint Drive to Round Tree Road | 2.1D | 18,800 | E | 4.2B |
| | | Valley Center Road | North Lake Wolford Road to Paradise Creek | 2.1D | 15,700 | E | 4.2B |
| | | Wood Valley Road | Oakmont Road to Augusta Drive | 2.1A | 17,500 | E | 4.2B |
| | | Wood Valley Road | Augusta Drive to Karibu Lane | 2.2C | 14,100 | E | 4.2B |
| **Southwestern Communities** | | | | | | | |
| Alpine | ME Road | Alpine Boulevard | Tavern Road to Boulders Road | 2.2A | 14,700 | E | 2.1A |
| | | Alpine Boulevard | Boulders Road to Alpine Special Treatment Center | 2.2A | 20,400 | F | 4.2B |
| | | Alpine Boulevard | Alpine Special Treatment Center to West Victoria Drive | 2.2A | 15,300 | E | 4.2B |
| | | Alpine Boulevard | West Victoria Drive to Bay Meadows Drive | 2.2A | 22,900 | F | 4.2B |
| | | Alpine Boulevard | Bay Meadow Drive to Viejas View Place | 2.2A | 16,200 | E | 4.2B |
| | | Alpine Boulevard | Viejas View Place to Willows Road | 2.1D | 20,300 | F | 4.2B |
| | | Alpine Boulevard | Willows Road to Viejas Row | 2.1E | 12,700 | E | 2.1C |
| | | South Grade Road | Eltinge Drive to Olive View Road | 2.2C | 15,600 | E | 4.2B |
| | | Viejas Row | Willows Road to Alpine Boulevard | 4.1A | 63,500 | F | 6.1 |
| | | Willows Road | Alpine Boulevard to Otto Avenue | 2.2C | 17,600 | E | 4.2B |
| | | Willows Road | Otto Avenue to Viejas Grade Road | 2.2C | 20,500 | F | 4.2B |
| | | Tavern Road | I-8 East Bound Ramps to Alpine Boulevard | 4.1A | 35,700 | E | 6.2 |
| County Island | ME Road | Pomerado Road | I-15 North Bound Ramps to Willow Creek Road | 4.1A | 34,800 | E | 6.2 |
| Jamul / Dulzura | State Hwy | Campo Road/SR-94 | Steele Canyon High School to Fair Acres Lane | 2-Ln State Highway | 28,800 | F | 4-Ln State Highway |
| | | Campo Road/SR-94 | Fair Acres Lane to Steel Canyon Road | 2-Ln State Highway | 25,500 | E | 4-Ln State Highway |
| | | Campo Road/SR-94 | Steel Canyon Road to Lyons Valley Road | 2-Ln State Highway | 30,700 | F | 4-Ln State Highway |
| | | Campo Road/SR-94 | Lyons Valley Road to Melody Road | 2-Ln State Highway | 20,300 | E | 4-Ln State Highway |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [(1)] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| Jamul / Dulzura | State Hwy | Campo Road/SR-94 | Barrett Lake Road to Tecate Sub-Group Area Boundary | 2-Ln State Highway | 19,500 | F | 4-Ln State Highway |
| | ME Road | Lyons Valley Road | Campo Road to Skyline Truck Trail | 2.2D | 17,200 | E | 4.2B |
| Lakeside | State Hwy | SR-67 | Poway/County Boundary to Scripps Poway Parkway | 4-Ln State Highway | 35,800 | F | 6-Ln State Highway |
| | | SR-67 | Scripps Poway Parkway to Sycamore Park | 4-Ln State Highway | 45,100 | F | 6-Ln State Highway |
| | | SR-67 | Johnson Lake Road to Posthill Road | 4-Ln State Highway | 44,500 | E | 6-Ln State Highway |
| | | SR-67 | Willow Road to Lakeside Avenue | 4-Ln State Highway | 43,300 | E | 6-Ln State Highway |
| | | SR-67 | Lakeside Avenue to Mapleview Street | 4-Ln State Highway | 55,300 | F | 6-Ln State Highway |
| | ME Road | Maine Avenue | Mapleview Street to Lakeshore Drive | 2.2E | 15,400 | E | 4.2B |
| | | Maine Avenue | Lakeshore Drive to Parkside Street | 2.2E | 16,300 | F | 4.2B |
| | | Maine Avenue | Parkside Street to Woodside Avenue | 2.2E | 14,300 | E | 4.2B |
| | | Los Coches Road | Woodside Avenue to Julian Avenue | 2.1D | 17,300 | E | 4.2B |
| | | Los Coches Road | Del Sol Road to I-8 Business Route | 2.1D | 17,700 | E | 4.2B |
| | | Willow Road | SR-67 to Ashwood Street | 2.2E | 15,300 | E | 4.2B |
| | | Wildcat Canyon Road | Willow Road to Lakeside/Ramona CPA Boundary | 2.1D | 34,900 | F | 6.2 |
| | | Mapleview Street | Maine Avenue to Ashwood Street | 4.1A | 39,300 | F | 6.2 |
| | | Lake Jennings Park Road | Jenning Vista Drive to I-8 Business Route | 4.1B | 31,400 | E | 6.2 |
| | | Lake Jennings Park Road | I-8 Business Route to I-8 West Bound Off-Ramp | 4.1B | 37,800 | F | 6.2 |
| | | Lake Jennings Park Road | I-8 West Bound Off-Ramp to I-8 East Bound Off-Ramp | 4.1B | 32,000 | E | 6.2 |
| | | Woodside Avenue | SR-67 North Bound Off-Ramp to Riverford Road | 4.2A | 29,700 | E | 4.1B |
| Otay | ME Road | Siempre Viva Road | SR-11 East Bound Ramps to Loop Road | 4.1A | 39,400 | F | 6.2 |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [(1)] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| Ramona | State Hwy | Julian Rd/SR-67 | Mussey Grade Road to Highland Valley Road | 4-Ln State Highway | 28,700 | F | 6-Ln State Highway |
| | | Main Street/SR-78 | 9th Street to 11th Street | 4-Ln State Highway | 31,000 | E | 6-Ln State Highway |
| | | Julian Road/SR-78 | 3rd Street to Earlham Street | 2-Ln State Highway | 17,400 | E | 4-Ln State Highway |
| | ME Road | 7th Street | Elm Street to A Street | 2.2E | 14,900 | E | 2.1D |
| | | 7th Street | Main Street to D Street | 2.2E | 15,400 | F | 4.2B |
| | | San Vicente Road | H Street to 11th Street | 2.1B | 14,000 | E | 2.1D |
| | | Wildcat Canyon Road | Harry Hertzberg Road to Lakeside/Ramona CPA Boundary | 2.1D | 34,900 | F | 6.2 |
| Spring Valley | ME Road | Paradise Valley Road | Elkelton Boulevard to Sweetwater Road | 4.1B | 35,500 | F | 6.2 |
| | | Jamacha Road | SR-125 South Bound Ramps to SR-125 North Bound Ramps | 4.1B | 34,300 | E | 6.2 |
| | | Jamacha Road | SR-125 North Bound Ramps to Sweetwater Road | 4.1B | 39,900 | F | 6.2 |
| | | Bancroft Drive | Troy Street to SR-94 East Bound Ramps | 2.2D | 20,000 | F | 4.2B |
| | | Kenwood Drive | Andreen Street to SR-94 East Bound Ramps | 2.2D | 14,600 | E | 2.1D |
| Sweetwater | ME Road | Briarwood Road | SR-54 West Bound Ramps to Robinwood Road | 2.1D | 18,700 | E | 4.2B |
| | | Sweetwater Road | Willow Street to Orchard Hill Road | 2.1A | 15,900 | E | 4.2B |
| | | Central Avenue | Sweetwater Road to San Miguel Road | 2.2B | 17,100 | E | 4.2B |
| Valle De Oro | State Hwy | Campo Road/SR-94 | Avocado Boulevard to Jamacha Blvd | 4-Ln State Highway | 70,900 | E | 6-Ln State Highway |
| | | Campo Road/SR-94 | Jamacha Boulevard to Jamacha Road | 4-Ln State Highway | 79,600 | E | 6-Ln State Highway |
| | ME Road | Jamacha Road | Campo Road/SR-94 to Fury Lane | 6.2 | 70,100 | F | 6.1 |
| | | Campo Road | Kenwood Drive to Conrad Drive | 4.2B | 47,500 | F | 6.2 |
| | | Fuerte Drive | Bancroft Drive to Lemon Avenue | 2.1E | 13,400 | E | 2.1C |
| | | Fuerte Drive | Lemon Avenue to Grandview Drive | 2.2E | 19,300 | F | 4.2B |
| | | Fuerte Drive | Grandview Drive to Avocado Boulevard | 2.1E | 14,300 | E | 2.1D |

**Table 2.15-21 (Continued)**

| CPA/Subregion | Facility Type | Roadway | Segment Limits | Classification [1] | ADT | LOS | Mitigated Classification |
|---|---|---|---|---|---|---|---|
| **Eastern Communities** | | | | | | | |
| Desert | ME Road | Borrego Springs Road | Diamond Bar Road to Tilting T Drive | 2.2D | 14,100 | E | 2.1D |
| | | Palm Canyon Drive | Ocotillo Circle to Borrego Springs Road | 2.2A | 19,400 | F | 4.2B |
| Mountain Empire[2] | State Hwy | Tecate Road/SR-188 | Campo Road to Airport Road | 2-Ln State Highway | 37,200 | F | 4-Ln State Highway |
| | | Tecate Road/SR-188 | Airport Road to Humphries Road | 2-Ln State Highway | 37,200 | F | 4-Ln State Highway |
| | | Tecate Road/SR-188 | Humphries Road to USA/Mexico Border | 2-Ln State Highway | 37,200 | F | 4-Ln State Highway |
| | | Campo Road/SR-94 | Tecate Sub-Group Area Boundary to Tecate Rd/ SR-188 | 2-Ln State Highway | 23,400 | F | 4-Ln State Highway |
| | | Campo Road/SR-94 | Tecate Road to Potrero Valley Road | 2-Ln State Highway | 15,700 | E | 4-Ln State Highway |

(1) Roadway classification definitions are provided above in Table 2.15-19.

(2) A technical memorandum dated 1/21/2009 was prepared by Kimley-Horn and Associates to evaluate the potential roadway deficiencies for the Referral Map in Tecate area of the unincorporated County. The findings in this memo were derived from the SANDAG Series 11 2030 model forecast in combination to an economic research/market demand study prepared by Tecate Sponsor Group in March of 2007. This technical memo along with Wilson & Company's (County Consultant) review memo can be found in Appendix A.

Source: Wilson and Company 2008a

## Table 2.15-22. Sphere of Influence Comparison of Mobility Element Road Classifications for the Unincorporated County to Adjacent Cities

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| Chula Vista | Sweetwater | Sweetwater Road (Plaza Bonita Center Way to Willow Street) | 4 Lane Major | 4 | Major Road | 4 | X | | |
| | | Sweetwater Road (Willow Street to Briarwood Road) | Class I Collector (similar to Blvd) | 4 | Community Collector with Raised Median | 2 | | X | |
| | | Sweetwater Road (Briarwood to Bonita Road) | Class I Collector (similar to Blvd) | 4 | Light Collector with Improvement Options[5] | 2 | | X | |
| | | Sweetwater Road (Bonita Road to Spring Valley community boundary) | Class I Collector (similar to Blvd) | 4 | Light Collector | 2 | | | X |
| | | Willow Street (Sweetwater Road to Chula Vista city limits) | 4 Lane Major | 4 | Major Road | 4 | X | | |
| | | Plaza Bonita Road (Chula Vista city limits to Chula Vista city limits near I-805) | 4 Lane Major | 4 | Major Road | 4 | X | | |
| | | Bonita Road (I-805 interchange to Central Avenue) | 4 Lane Major | 4 | Major Road | 4 | X | | |
| | | Bonita Road (Central Avenue to Sweetwater Road) | Class I Collector (similar to Blvd) | 4 | Community Collector with Improvement Options[5] | 2 | | X | |
| | | Briarwood Road (SR-53 to Sweetwater Road) | Other Road | 2 | Community Collector with Improvement Options[5] | 2 | X | | |
| | | San Miguel Road (Bonita Road to Proctor Valley Road) | Other Road | 2 | Minor Collector | 2 | X | | |
| | | Central Avenue (Sweetwater Road to Corral Canyon Road) | Class I Collector (similar to Blvd) | 4 | Light Collector with Continuous Turn Lane (Bonita Road to Corral Canyon Road) | 3 | | | X |
| | | Corral Canyon Road (Central Avenue to Chula Vista city limits) | Class I Collector (similar to Blvd) | 4 | Light Collector with Continuous Turn Lane | 3 | | | X |

**Table 2.15-22 (Continued)**

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| Chula Vista | Jamul-Dulzura | Proctor Valley Road (Chula Vista city limits to SR-94) | 4 Lane Major | 4 | Light Collector | 2 | | | X |
| | Otay | Otay Lakes Road (Chula Vista city limits to second entrance to Otay Village 13) | 6 Lane Prime | 6 | Major Road | 4 | | | X |
| El Cajon | Lakeside | Magnolia Avenue (Pepper Drive to Vernon Way) | Secondary | 4 | Major Road | 4 | X | | |
| | | Graves Avenue (Pepper Drive to Bradley Avenue) | Collector | 2 | Major Road | 4 | | | X |
| | | Graves Avenue (Bradley Avenue to El Cajon city limits) | Primary | 6 | Light Collector | 2 | | | X |
| | | Pepper Drive (Graves Avenue to Bradley Avenue) | Collector | 2 | Light Collector | 2 | X | | |
| | | Pepper Drive (Bradley Avenue to Winter Gardens Boulevard) | Primary | 6 | Major Road | 4 | | | X |
| | | Pepper Drive (Winter Gardens Boulevard to El Cajon city limits) | Primary | 6 | Light Collector | 2 | | | X |
| | | Bradley Avenue (N. Magnolia Ave to N. 1st St) | Primary | 6 | Major Road | 4 | | | X |
| | | Greenfield Drive (El Cajon city limits to El Cajon city limits [near Mollison Avenue] and El Cajon city limits to Pepper Drive) | Secondary | 4 | Light Collector with Continuous Turn Lane | 3 | | | X |
| | | Ballantyne Street (Hart Drive to Greenfield Drive) | Primary | 6 | Boulevard | 4 | | | X |
| | | North Mollison Avenue (El Cajon city limits to Pepper Drive) | Secondary | 4 | Light Collector | 2 | | | X |
| | | North First Street (Sumner Ave to Pepper Drive) | Secondary | 4 | Light Collector | 2 | | | X |
| | | Oro Street (El Cajon city limits to El Cajon city limits [near Greenfield Ave]) | Collector | 2 | Light Collector | 2 | X | | |

**Table 2.15-22 (Continued)**

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| El Cajon | Crest-Dehesa | Greenfield Drive (El Cajon city limits to East Madison Avenue) | Primary | 6 | Major Road | 4 | | | **X** |
| | | La Cresta Road (Greenfield Drive to Carob Tree Lane) | Primary | 6 | Community Collector with Improvement Options[(5)] | 2 | | | **X** |
| | | Granite Hills Drive (El Cajon city limits to Melody Lane) | Secondary | 4 | Major Road | 4 | **X** | | |
| Escondido | North County Metro | Deer Springs Road (Escondido SOI boundary to Mesa Rock Road) | Major Road | 6 | Prime Arterial | 6 | **X** | | |
| | | Mesa Rock Road (Deer Springs Road to North Centre City Parkway) | Local Collector | 2 | Light Collector | 2 | **X** | | |
| | | North Centre City Parkway (Mountain Meadow Road to Escondido city limits [near Nutmeg Street]) | Collector | 4 | Major Road | 4 | **X** | | |
| | | Jesmond Dene Road (Centre City Parkway to North Broadway) | Local Collector | 2 | Light Collector | 2 | **X** | | |
| | | North Broadway (Mountain Meadow Road to North Avenue) | Collector | 4 | Community Collector with Improvement Options[(5)] | 2 | | **X** | |
| | | Mountain Meadow Road (I-15 to North Broadway) | Collector | 4 | Major Road | 4 | **X** | | |
| | | Mirar de Valle Road/Alps Way (North Broadway to Burnt Mountain Road) | Collector | 4 | Community Collector with Improvement Options[(5)] | 2 | | **X** | |
| | | Rock Springs Road (San Marcos city limits to Escondido city limits) | Collector | 4 | Major Road | 4 | **X** | | |
| | | Nordahl Road (Rock Springs Road to El Norte Parkway) | Major Road | 4 | Major Road | 4 | **X** | | |
| | | El Norte Parkway (Reese Road to El Norte Parkway) | Major Road | 4 | Major Road | 4 | **X** | | |

**Table 2.15-22 (Continued)**

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| Escondido | North County Metro | North Ash Street (Escondido city limits [near Collins Terrace] to Hubbard Avenue]) | Collector | 4 | Community Collector with Improvement Options[5] | 2 | | X | |
| | | Del Dios Highway (Escondido city limits to Via Rancho Parkway) | Major Road | 6 | Major Road | 4 | | | X |
| | | Del Dios Highway (South of Via Rancho Parkway to Escondido city limits) | Major Road | 6 | Community Collector with Improvement Options[5] | 2 | | | X |
| | | Via Rancho Parkway (Del Dios Highway to Montesano Road) | Major Road | 4 | Major Road | 4 | X | | |
| | | Felicita Road (Hamilton Lane to Via Rancho Parkway) | Collector | 4 | Light Collector | 2 | | | X |
| | | Gamble Lane (Escondido city limits [near Mountain Hills Place] to Escondido city limits [near Felicita Road]) | Major Road | 4 | Major Road | 4 | X | | |
| | | Sunset Drive (Escondido city limits to Bear Valley Parkway) | Local Collector | 2 | Light Collector | 2 | X | | |
| | | 17th Avenue (Escondido city limits to San Pasqual Valley Road) | Collector | 4 | Light Collector with Improvement Options[5] | 2 | | X | |
| | | Idaho Avenue (Escondido city limits [near Pedregal Drive] to Bear Valley Parkway) | Local Collector | 2 | Light Collector with Improvement Options[5] | 2 | | X | |
| | | San Pasqual Valley Road (SR-78) (Birch Avenue to Cloverdale Road) | Major Road | 4 | Major Road | 4 | X | | |
| | | Bear Valley Parkway (Austin Way to Encino Drive) | Major Road | 4 | Major Road | 4 | X | | |
| | | Citrus Avenue (Escondido city limits [near Coltrane Place] to San Pasqual Valley Road) | Local Collector | 2 | Light Collector | 2 | X | | |
| | | Mountain View Drive (Royal Oak Drive to Cloverdale Road) | Local Collector | 2 | Light Collector | 4 | X | | |

**Table 2.15-22 (Continued)**

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| Escondido | North County Metro | Mary Lane/Summit Drive (Escondido city limits [near Jasmine Place] to San Pasqual Valley Road) | Local Collector | 2 | Community Collector | 2 | X | | |
| | | San Pasqual Road (San Pasqual Valley Road to Bear Valley Parkway [excluding portions with Escondido city limits]) | Major Road | 4 | Major Road | 4 | X | | |
| | | Lake Wohlford Road (Valley Center Road to Valley Center boundary) | Local Collector | 2 | Light Collector | 2 | X | | |
| | North County Metro/ Valley Center | Valley Center Road (Valley Center community boundary to Escondido city limits) | Prime Arterial | 8 | Major Road | 4 | | | X |
| Lemon Grove[(1)] | Spring Valley | Sweetwater Road (Blossom Lane to Jamacha Road) | Undesignated | 2 | Major Road | 4 | | | X |
| National City | County Island of Lincoln Acres | Euclid Avenue (National City limits to Sweetwater Road) | Arterial | 4 | Major Road | 4 | X | | |
| | | Sweetwater Road (Entire length within Lincoln Acres County Island) | Arterial | 4 | Prime Arterial | 6 | | | X |
| Poway | Lakeside | Scripps Poway Parkway (Poway city limits to SR-67) | Prime Arterial | 6 | Prime Arterial | 6 | X | | |
| | | State Route 67 (Poway city limits to Scripps Poway Parkway) | Major Roadway | 4 | Major Road | 4 | X | | |
| San Diego | County Islands of Scripps-Miramar | Pomerado Road (I-15 to San Diego city limits) | Prime Arterial | 6 | Major Road | 4 | | | X |
| San Marcos | North County Metro | N. Twin Oaks Valley Road (San Marcos city limits to Twin Oaks Crest Drive) | Prime Arterial | 6 | Light Collector | 2 | | | X |
| | | Buena Creek Road (Bluebird Canyon Road to San Marcos city limits) | Secondary Arterial | 4 | Major Road | 4 | X | | |
| | | Deer Springs Road(San Marcos city limits [near Twin Oaks Valley Road] to San Marcos SOI boundary [near I-15]) | Rural Major Arterial | 4 | Prime Arterial | 6 | | | X |

**Table 2.15-22 (Continued)**

| City | CPA/Subregion within SOI | Road Name (Segment) | City Road Classification | Number of Lanes | General Plan Update Classification | Number of Lanes | Consistent | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Yes | Partially | No |
| San Marcos | North County Metro | Rancho Santa Fe Road (Melrose Drive [Vista] to San Marcos Boulevard [San Marcos]) | Prime Arterial | 6 | Prime Arterial | 6 | X | | |
| Vista[2] | Bonsall | East Vista Way (Vista city limits to Mason Road) | Major Road[4] | 4 | Major Road | 4 | X | | |
| | | Osborne Street (Vista city limits to East Vista Way) | N/A[2] | - | Light Collector with Raised Median | 2 | | | |
| | North County Metro | Sunset Drive (Oceanside city limits [near Sky Haven Lane] to Vista city limits [near Melrose Drive]) | N/A[2] | - | Light Collector | 2 | | | |
| | | Mar Vista Drive (Cannon Road [Oceanside] to Mar Vista Drive [Vista]) | 2 lane[3] w/ Continuous Turn Lane | 3 | Light Collector | 2 | | X | |
| | | Foothill Drive (Vista city limits to Monte Vista Drive) | Community Collector[3] | 2 | Light Collector with Improvement Options[5] | 2 | | X | |
| | | Monte Vista Drive (Vista city limits to Buena Creek Road) | Community Collector[3] | 2 | Major Road | 4 | | | X |
| | | South Santa Fe Avenue (Vista city limits to San Marcos city limits) | N/A[2] | - | Major Road | 4 | | | |
| | | Buena Creek Road (South Santa Fe Avenue to Monte Vista Drive) | N/A[2] | - | Major Road | 4 | | | |
| | | Sycamore Avenue (South Santa Fe Avenue to SR 78) | Prime Arterial[4] | 6 | Prime Arterial | 6 | X | | |
| | | Smilax Road (San Marcos city limits [near Oleander Avenue] to South Santa Fe Avenue) | N/A[2] | - | Major Road | 4 | | | |

(1) Lemon Grove's Circulation Element does not include Sweetwater Road.
(2) Vista's Circulation Element does not include roads within their SOI. They are in the process of updating their GP, which will include roads within the SOI.
(3) Circulation Element designations provided in Vista's comment letter on County Draft General Plan.
(4) Road classification from Vista's GP for road within city boundary that has a direct connection to County Mobility Element road.
(5) This County Mobility Element classification reserves the right-of-way for a four-lane road.

Source: DPLU 2009

## Table 2.15-23. SANTEC/ITE Measures of Significant Project Traffic Impacts

| LOS with Project | Allowable Change Due to Impact | | | | | |
|---|---|---|---|---|---|---|
| | Freeways | | Roadway Segments | | Intersections | Ramp Metering |
| | V/C | Speed (mph) | V/C | Speed (mph) | Delay (sec) | Delay (min.) |
| E & F (or ramp meter delays greater than 15 minutes) | 0.01 | 1 | 0.02 | 1 | 2 | 2 |

Source: Wilson and Company 2009b

## Table 2.15-24. Significant Traffic Impacts to Adjacent Cities Resulting from the Proposed Project

| Roadway | Segment | Existing | | | General Plan Update | | | Δ in V/C |
|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | |
| **Carlsbad** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Chula Vista** | | | | | | | | |
| Bonita Road | Bonita Glen Dr to I-805 South Bound Ramps | 34,300 | 0.91 | **E** | 37,800 | 1.01 | **F** | 0.10 |
| | I-805 South Bound Ramps to I-805 North Bound Ramps | 54,000 | 1.44 | **F** | 55,500 | 1.48 | **F** | 0.04 |
| | I-805 North Bound Ramps to Plaza Bonita Rd | 42,400 | 1.13 | **F** | 43,500 | 1.16 | **F** | 0.03 |
| | Plaza Bonita Rd to Willow St | 30,300 | 0.81 | **D** | 33,900 | 0.90 | **E** | 0.09 |
| | Willow St to Chula Vista City Limit | 32,500 | 0.87 | **D** | 39,000 | 1.04 | **F** | 0.17 |
| **Del Mar** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **El Cajon** | | | | | | | | |
| Jamacha Road | Main Street to Granite Hill Dr | 35,000 | 0.88 | **E** | 37,000 | 0.93 | **E** | 0.05 |
| 2nd Street | Persimmon Avenue to Broadway | 32,000 | 0.80 | D | 36,100 | 0.90 | **E** | 0.10 |
| | Broadway to I-8 West Bound Ramps | 33,500 | 0.84 | D | 38,900 | 0.97 | **E** | 0.13 |
| **Encinitas** | | | | | | | | |
| Rancho Santa Fe Road | Manchester Ave to Eastern City Limit | 22,700 | 1.15 | **F** | 24,500 | 1.23 | **F** | 0.08 |
| **Escondido** | | | | | | | | |
| Centre City Parkway | Centre City Rd to Brotherton Rd | 39,400 | 1.06 | **F** | 43,400 | 1.17 | **F** | 0.11 |
| | Brotherton Rd to Citracado Parkway | 32,600 | 0.88 | **D-** | 34,200 | 0.92 | **E** | 0.04 |
| Felicita Avenue/17th Avenue | Escondido Blvd to Centre City Parkway | 27,000 | 0.79 | C | 29,700 | 0.87 | **D-** | 0.08 |
| Bear Valley Parkway | San Pasqual Road to Mary Lane | 27,900 | 0.75 | C | 35,300 | 0.95 | **E** | 0.20 |
| **La Mesa** | | | | | | | | |
| Fuerte Drive | Grossmont Dr to Avocado Blvd | 15,700 | 1.57 | **F** | 18,500 | 1.85 | **F** | 0.28 |

**Table 2.15-24 (Continued)**

| Roadway | Segment | Existing | | | GP Update | | | Δ in V/C |
|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | |
| **Lemon Grove** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **National City** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Oceanside** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Poway** | | | | | | | | |
| Poway Road | Iola Way to Oak Knoll Rd | 27,300 | 0.68 | C | 40,000 | 1.00 | **F** | 0.32 |
| | Oak Knoll Rd to Pomerado Rd | 36,000 | 0.90 | **E** | 39,600 | 0.99 | **E** | 0.09 |
| | Pomerado Rd to Carriage Rd | 33,500 | 0.84 | D | 37,500 | 0.94 | **E** | 0.10 |
| | Carriage Rd to Community Rd | 36,500 | 0.91 | **E** | 40,000 | 1.00 | **F** | 0.09 |
| | Espola Road to SR-67 | 18,800 | 1.88 | **F** | 20,100 | 2.01 | **F** | 0.13 |
| Scripps Poway Parkway | Springbrook Dr to Community Rd | 49,400 | 0.82 | C | 56,600 | 0.94 | **E** | 0.12 |
| **San Diego** | | | | | | | | |
| Rancho Bernardo Road | Via Del Campo to W. Bernardo Dr | 23,700 | 0.59 | C | 35,800 | 0.90 | **E** | 0.31 |
| | West Bernardo Dr to I-15 | 47,400 | 1.19 | **F** | 56,100 | 1.40 | **F** | 0.21 |
| Scripps Poway Parkway | I-15 to Spring Canyon Road | 52,900 | 0.88 | D | 61,600 | 1.03 | **F** | 0.15 |
| Via de la Valle | I-15 North Bound Ramps to San Andres Dr | 37,700 | 0.94 | **E** | 43,100 | 1.08 | **F** | 0.14 |
| | San Andres Dr to El Camino Real | 22,500 | 2.25 | **F** | 26,500 | 2.65 | **F** | 0.40 |
| Airway Road | Michael Faraday Dr to SR-905 | 6,600 | 0.66 | C | 17,500 | 1.75 | **F** | 1.09 |
| Siempre Viva Road | SR-125 to Enrico Fermi Dr | 19,400 | 0.39 | B | 59,300 | 1.19 | **F** | 0.80 |
| **San Marcos** | | | | | | | | |
| Las Posas Road | SR-78 West Bound Ramps to Grand Ave | 37,700 | 0.75 | D | 56,500 | 1.13 | **F** | 0.38 |
| | Grand Ave to Vista Dr | 15,900 | 0.53 | C | 31,500 | 1.05 | **F** | 0.52 |
| | Vista Dr to Stone Dr | 12,100 | 0.40 | B | 25,600 | 0.85 | **E** | 0.45 |
| **Santee** | | | | | | | | |
| Mast Boulevard | Shirley Garden to Magnolia Ave | 21,700 | 0.72 | D | 27,400 | 0.91 | **E** | 0.19 |
| Woodside Avenue | Magnolia Ave to SR-67 | 32,000 | 0.80 | D | 37,400 | 0.94 | **E** | 0.14 |
| **Solana Beach** | | | | | | | | |
| Lomas Santa Fe Drive | Solana Hills Dr to I-5 South Bound Ramps | 31,700 | 0.79 | D | 37,000 | 0.93 | **E** | 0.14 |
| **Vista** | | | | | | | | |
| Sycamore Avenue | SR-78 East Bound Ramps to Hibiscus Way | 48,900 | 0.82 | D | 54,600 | 0.91 | **E** | 0.09 |

Note: Bold lettering indicates deficient LOS
Source: Wilson and Company 2009a

## Table 2.15-25. Cumulative Traffic Map Roadway Lane Miles by Community

| CPA/Subregion | Lane Miles | | | |
|---|---|---|---|---|
| | State Highway | ME Roads | Local Public Roads | Total |
| **Northwestern Communities** | | | | |
| Bonsall | 17 | 83 | 22 | 122 |
| Fallbrook | 26 | 151 | 50 | 227 |
| North County Metro | 15 | 201 | 35 | 251 |
| Pala/Pauma Valley | 60 | 46 | 3 | 109 |
| Pendleton/De Luz | 0 | 58 | 2 | 60 |
| Rainbow | 0 | 19 | 0 | 19 |
| San Dieguito | 0 | 106 | 54 | 160 |
| Valley Center | 0 | 185 | 36 | 221 |
| **Northwestern Subtotal** | 118 | 849 | 202 | 1,169 |
| **Southwestern Communities** | | | | |
| Alpine | 0 | 109 | 33 | 142 |
| County Islands | 0 | 4 | 0 | 4 |
| Crest/Dehesa | 0 | 63 | 9 | 72 |
| Jamul/Dulzura | 55 | 100 | 60 | 215 |
| Lakeside | 32 | 181 | 53 | 266 |
| Otay | 0 | 61 | 7 | 68 |
| Ramona | 65 | 152 | 52 | 269 |
| Spring Valley | 0 | 62 | 32 | 94 |
| Sweetwater | 0 | 28 | 8 | 36 |
| Valle de Oro | 11 | 97 | 34 | 142 |
| **Southwestern Subtotal** | 163 | 857 | 288 | 1,308 |
| **Eastern Communities** | | | | |
| Central Mountain | 43 | 146 | 66 | 255 |
| Desert | 60 | 266 | 8 | 334 |
| Julian | 35 | 25 | 1 | 61 |
| Mountain Empire | 71 | 144 | 76 | 291 |
| North Mountain | 124 | 120 | 62 | 306 |
| **Eastern Subtotal** | 333 | 701 | 213 | 1,247 |
| **Total** | **614** | **2,407** | **703** | **3,724** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-26. Cumulative Traffic Map Roadway Lane Miles by LOS

| CPA/Subregion | Lane Miles | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOS A-C | | | LOS D | | | LOS E | | | LOS F | | |
| | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total | State Hwy | ME Roads | Total |
| **Northwestern Communities** | | | | | | | | | | | | |
| Bonsall | 2 | 69 | 72 | 3 | 8 | 11 | 1 | 7 | 8 | 11 | - | 11 |
| Fallbrook | 22 | 77 | 99 | 4 | 42 | 46 | 1 | 24 | 25 | - | 8 | 8 |
| North County Metro | 15 | 146 | 161 | - | 33 | 33 | 0 | 16 | 16 | - | 7 | 7 |
| Pala/Pauma Valley | 49 | 36 | 85 | 5 | 8 | 13 | 2 | 2 | 4 | 4 | - | 4 |
| Pendleton/ De Luz | - | 42 | 42 | - | 15 | 15 | - | - | - | - | - | - |
| Rainbow | - | 13 | 13 | - | 3 | 3 | - | 2 | 2 | - | 1 | 1 |
| San Dieguito | - | 51 | 51 | - | 20 | 20 | - | 11 | 11 | - | 24 | 24 |
| Valley Center | - | 106 | 106 | - | 53 | 53 | - | 12 | 12 | - | 14 | 14 |
| **Northwestern Subtotal** | 88 | 540 | 629 | 12 | 182 | 194 | 4 | 74 | 78 | 15 | 54 | 69 |
| **Southwestern Communities** | | | | | | | | | | | | |
| Alpine | - | 73 | 73 | - | 13 | 13 | - | 14 | 14 | - | 8 | 8.3 |
| County Islands | - | 1 | 1 | - | - | - | - | 3 | 3 | - | - | - |
| Crest/Dehesa | - | 52 | 52 | - | 11 | 11 | - | - | - | - | - | - |
| Jamul/Dulzura | 18 | 94 | 112 | 18 | 2 | 20 | 8 | 4 | 12 | 11 | - | 10.6 |
| Lakeside | 16 | 132 | 148 | 7 | 23 | 30 | 3 | 11 | 14 | 6 | 14 | 20.0 |
| Otay | - | 55 | 55 | - | 6 | 6 | - | - | - | - | 0 | 0.3 |
| Ramona | 53 | 119 | 172 | 10 | 20 | 30 | 1 | 9 | 10 | 1 | 4 | 5.8 |
| Spring Valley | - | 36 | 36 | - | 19 | 19 | - | 5 | 5 | - | 3 | 2.8 |
| Sweetwater | - | 19 | 19 | - | 9 | 9 | - | 0 | 0 | - | - | - |
| Valle de Oro | 5 | 74 | 79 | 0 | 14 | 14 | 3 | 4 | 7 | 2 | 5 | 7.2 |
| **Southwestern Subtotal** | 92 | 655 | 747 | 35 | 117 | 152 | 15 | 50 | 65 | 20 | 34 | 55 |
| **Eastern Communities** | | | | | | | | | | | | |
| Central Mountain | 43 | 143 | 186 | - | 3 | 3 | - | - | - | - | - | - |
| Desert | 61 | 253 | 314 | - | 6 | 6 | - | 7 | 7 | - | - | - |
| Julian | 35 | 25 | 60 | - | - | - | - | - | - | - | - | - |
| Mountain Empire | 44 | 141 | 185 | - | 3 | 3 | 13 | - | 13 | 14 | - | 14 |
| North Mountain | 124 | 110 | 234 | - | 10 | 10 | - | - | - | - | - | - |
| **Eastern Subtotal** | 307 | 672 | 979 | - | 22 | 22 | 13 | 7 | 20 | 14 | - | 14 |
| **Total** | **487** | **1,867** | **2,355** | **47** | **321** | **368** | **32** | **131** | **163** | **49** | **88** | **138** |

Note: Due to rounding, numbers may not exactly match those in Appendix G.
Source: Wilson and Company 2009a

## Table 2.15-27. Cumulative Significant Traffic Impacts Existing Conditions vs. Existing General Plans

| Roadway | Segment | Existing Conditions | | | Existing General Plan | | | Δ in V/C |
|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | |
| **Carlsbad** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Chula Vista** | | | | | | | | |
| Bonita Rd | Bonita Glen Dr to I-805 SB Ramps | 34,300 | 0.91 | **E** | 37,700 | 1.01 | **F** | 0.10 |
| | I-805 SB Ramps to I-805 NB Ramps | 54,000 | 1.44 | **F** | 55,300 | 1.47 | **F** | 0.03 |
| | I-805 NB Ramps to Plaza Bonita Rd | 42,400 | 1.13 | **F** | 43,200 | 1.15 | **F** | 0.02 |
| | Plaza Bonita Rd to Willow St | 30,300 | 0.81 | **D** | 34,100 | 0.91 | **E** | 0.10 |
| | Willow St to Chula Vista City Limit | 32,500 | 0.87 | **D** | 34,100 | 0.91 | **E** | 0.04 |
| **Del Mar** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **El Cajon** | | | | | | | | |
| Jamacha Rd | Main St to Granite Hill Dr | 35,000 | 0.88 | **E** | 38,000 | 0.95 | **E** | 0.07 |
| 2nd St | Persimmon Ave to Broadway | 32,000 | 0.80 | D | 39,000 | 0.98 | **E** | 0.18 |
| **Encinitas** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Escondido** | | | | | | | | |
| Centre City Pkwy | Centre City Rd to Brotherton Rd | 39,400 | 1.06 | **F** | 43,100 | 1.16 | **F** | 0.10 |
| | Brotherton Rd to Citracado Pkwy | 32,600 | 0.88 | **D-** | 34,000 | 0.92 | **E** | 0.04 |
| Felicita Ave/ 17th Ave | Escondido Blvd to Centre City Pkwy | 27,000 | 0.79 | C | 29,900 | 0.87 | **D-** | 0.08 |
| **La Mesa** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Lemon Grove** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **National City** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Oceanside** | | | | | | | | |
| No Significant Impacts | | | | | | | | |
| **Poway** | | | | | | | | |
| Poway Rd | Iola Way to Oak Knoll Rd | 27,300 | 0.68 | C | 40,300 | 1.01 | **F** | 0.33 |
| | Oak Knoll Rd to Pomerado Rd | 36,000 | 0.90 | **E** | 39,900 | 1.00 | **E** | 0.10 |
| | Pomerado Rd to Carriage Rd | 33,500 | 0.84 | D | 37,800 | 0.95 | **E** | 0.11 |
| | Carriage Rd to Community Rd | 36,500 | 0.91 | **E** | 40,300 | 1.01 | **F** | 0.10 |
| | Silver Ridge Rd to Espola Rd | 12,900 | 0.86 | D | 13,700 | 0.91 | **E** | 0.05 |
| | Espola Rd to SR-67 | 18,800 | 1.88 | **F** | 21,200 | 2.12 | **F** | 0.24 |
| Scripps Poway Pkwy | Springbrook Dr to Community Rd | 49,400 | 0.82 | C | 58,000 | 0.97 | **E** | 0.15 |

**Table 2.15-27 (Continued)**

| Roadway | Segment | Existing Conditions | | | Existing GP | | | Δ in V/C |
|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | |
| **San Diego** | | | | | | | | |
| Rancho Bernardo Rd | Via Del Campo to W. Bernardo Dr | 23,700 | 0.59 | C | 36,700 | 0.92 | **E** | 0.33 |
| | W. Bernardo Dr to I-15 | 47,400 | 1.19 | **F** | 56,900 | 1.42 | **F** | 0.23 |
| Scripps Poway Pkwy | I-15 to Spring Canyon Rd | 52,900 | 0.88 | D | 61,300 | 1.02 | **F** | 0.14 |
| Via de la Valle | Jimmy Durante Blvd to I-15 NB Ramps | 31,200 | 0.78 | D | 37,900 | 0.95 | **E** | 0.17 |
| | I-15 NB Ramps to San Andres Dr | 37,700 | 0.94 | **E** | 40,200 | 1.01 | **F** | 0.07 |
| | San Andres Dr to El Camino Real | 22,500 | 2.25 | **F** | 27,100 | 2.71 | **F** | 0.46 |
| Airway Rd | Michael Faraday Dr to SR-905 | 6,600 | 0.66 | C | 16,100 | 1.61 | **F** | 0.95 |
| Siempre Viva Rd | SR-905 to Enrico Fermi Dr | 19,400 | 0.39 | B | 50,700 | 1.01 | **F** | 0.62 |
| **San Marcos** | | | | | | | | |
| Las Posas Rd | SR-78 WB Ramps to Grand Ave | 37,700 | 0.75 | D | 55,500 | 1.11 | **F** | 0.36 |
| | Grand Ave to Vista Dr | 15,900 | 0.53 | C | 31,000 | 1.03 | **F** | 0.50 |
| | Vista Dr to Stone Dr | 12,100 | 0.40 | B | 25,100 | 0.84 | **E** | 0.44 |
| **Santee** | | | | | | | | |
| Mast Blvd | Shirley Garden to Magnolia Ave | 21,700 | 0.72 | D | 25,900 | 0.86 | **E** | 0.14 |
| Woodside Ave | Magnolia Ave to SR-67 | 32,000 | 0.80 | D | 37,700 | 0.94 | **E** | 0.14 |
| **Solana Beach** | | | | | | | | |
| Lomas Santa Fe Dr | Solana Hills Dr to I-5 SB Ramps | 31,700 | 0.79 | D | 37,600 | 0.94 | **E** | 0.15 |
| | I-5 SB Ramps to Via Mil Cumbres | 28,300 | 0.71 | C | 36,100 | 0.90 | **E** | 0.19 |
| **Vista** | | | | | | | | |
| Sycamore Ave | SR-78 EB Ramps to Hibiscus Way | 48,900 | 0.82 | D | 57,300 | 0.96 | **E** | 0.14 |

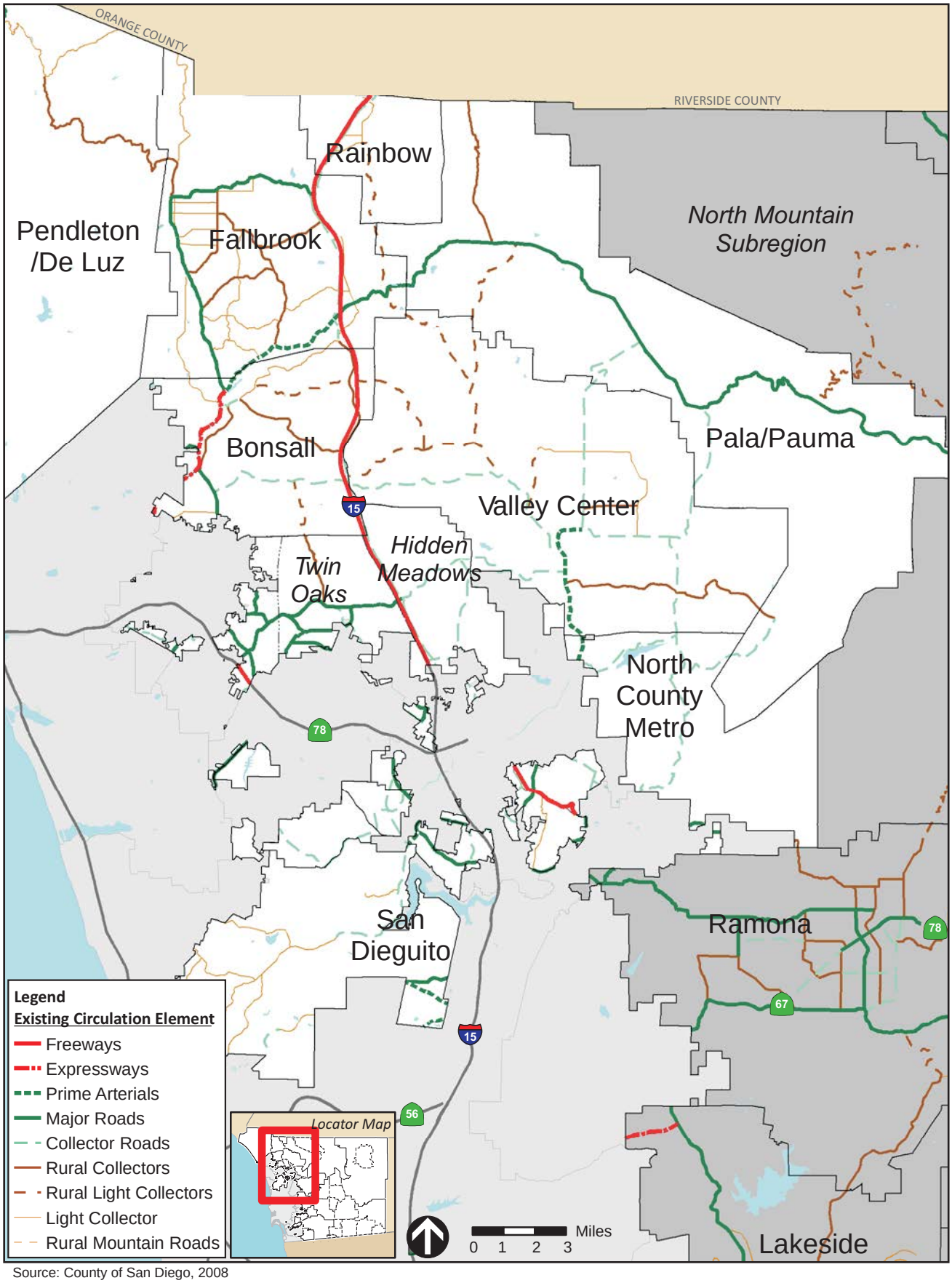
Δ in V/C = the change in the volume to capacity ratio between the two scenarios.
Note: **Bold** letters indicate deficient LOS.
Source: Wilson and Company 2009a

## Table 2.15-28. Criteria for Accepting LOS E/F Roads

Identified below are the applicable situations, and potential improvement options, for accepting a road classification where a Level of Service E / F is forecast. The instances described below specify when the adverse impacts of adding travel lanes do not justify the resulting benefit of increased traffic capacity. In addition, adding capacity to roads can be growth inducing in areas where additional growth is currently not planned, which is not consistent with County Global Climate Change strategies.

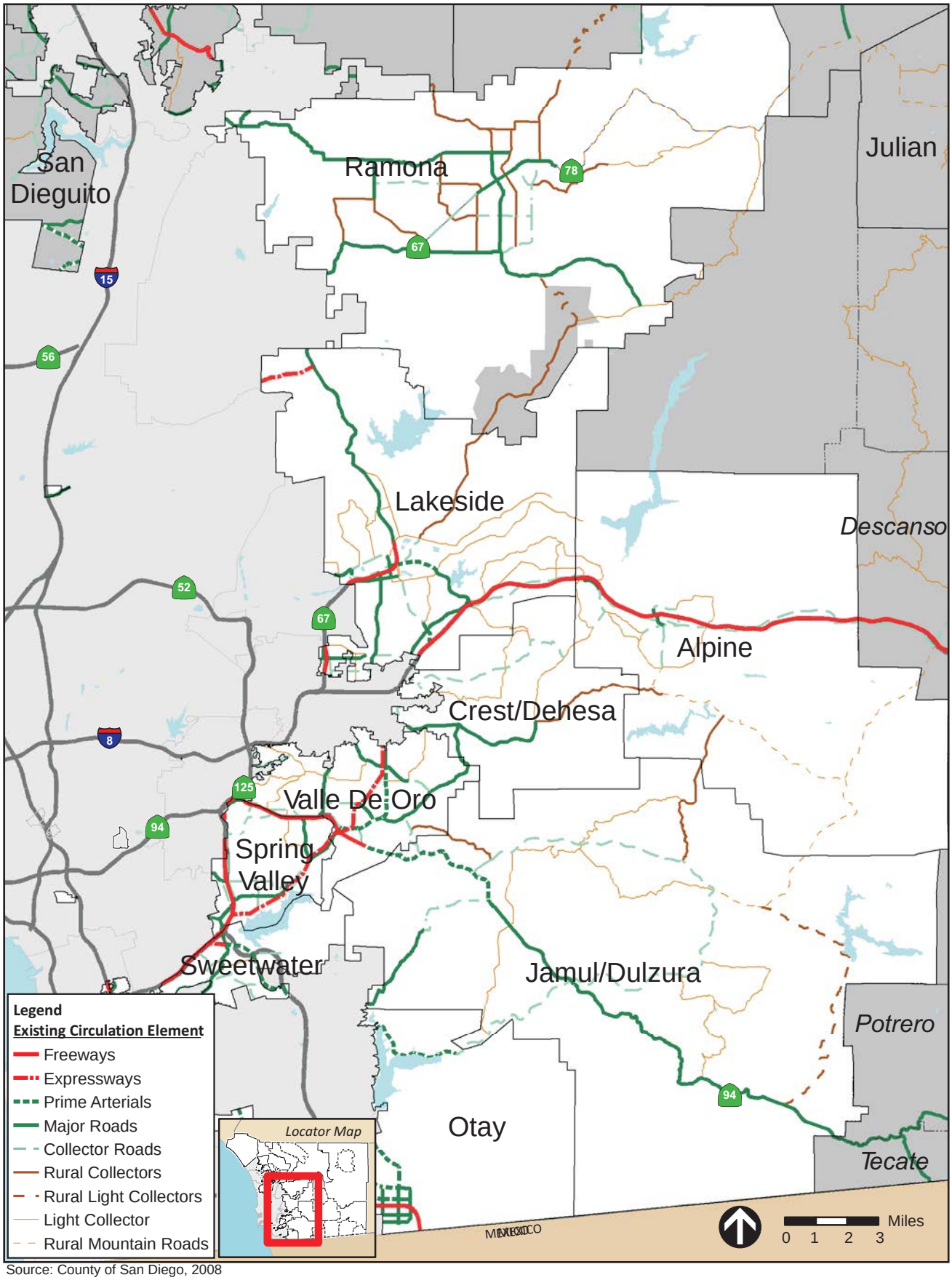
| | |
|---|---|
| Marginal Deficiencies | **When This Would Apply**—Marginal deficiencies are characterized when only a short segment of a road is forecast to operate at LOS E or F, or the forecasted traffic volumes are only slightly higher than the LOS D threshold. Classifying the road with a designation that would add travel lanes for the entire road would be excessive and could adversely impact community character and / or impede bicycle and pedestrian circulation. Also, in some instances, although underutilized alternate routes exist that could accommodate the excess traffic, they were not included in the traffic forecast model. |
| | **Potential Improvement Options**—Rather than increase the number of travel lanes for the entire road segment to achieve a better LOS, it is more prudent to apply operational improvements only on the portion of the road operating at LOS E and F. This may require specifying a road classification "With Improvement Options" to retain sufficient right-of-way to construct any necessary operational improvements. |
| Town Center Impacts | **When This Would Apply**—This situation would apply when the right-of-way required to add travel lanes would adversely impact established land development patterns and / or impede bicycle and pedestrian circulation. The Community Development Model (see the General Plan's Guiding Principle #2) concept strives to establish a land development pattern with compact villages and town centers surrounded by areas of low and very low density development. The construction of large multi-lane roads would divide an established town center, even though the intent of the road would be to connect areas within the community or improve access to areas within or surrounding the community. |
| | **Potential Improvement Options**—Traffic congestion impacts can be mitigated without adding travel lanes by establishing alternate parallel routes that would distribute the traffic volumes, such as a network of local public roads. Other means of mitigating traffic congestion impacts other than increasing the number of traffic lanes include promoting the use of alternate modes of travel in town centers to reduce single-occupant vehicle trips or maximizing the efficiency of a roadway with operational improvements, such as intersection improvements. |
| Regional Connectivity | **When This Would Apply**—Regional connectivity issues would apply when congestion on State freeways and highways causes regional travelers to use County roads, resulting in congestion on the County road network. Rather than widening County roads to accommodate this traffic, the deficiencies in the regional road network should be addressed. |
| | **Potential Improvement Options**—Coordinate with SANDAG to identify the necessary improvements to the regional transportation network and to support appropriate priority in the Regional Transportation Plan to improve these congested freeways and highways, rather than contributing to increased congestion on County roads. |
| Impacts to Environmental and Cultural Resources | **When This Would Apply**—This situation would occur when adding travels lanes to a road that would adversely impact environmental and cultural resources such as significant habitat, wetlands, MSCP preserves, wildlife movement, historic landmarks, stands of mature trees, or archaeological sites. This situation would also occur in areas with steep slopes where widening roads would require massive grading, which would result in adverse environmental impacts and other degradation of the physical environment. |
| | **Potential Improvement Options**—Provide improvement options, such as passing lanes, to areas without significant environmental or cultural constraints. This may require specifying a road classification "With Improvement Options" to retain sufficient right-of-way to construct any necessary operational improvements. |

Source: County DPLU 2009



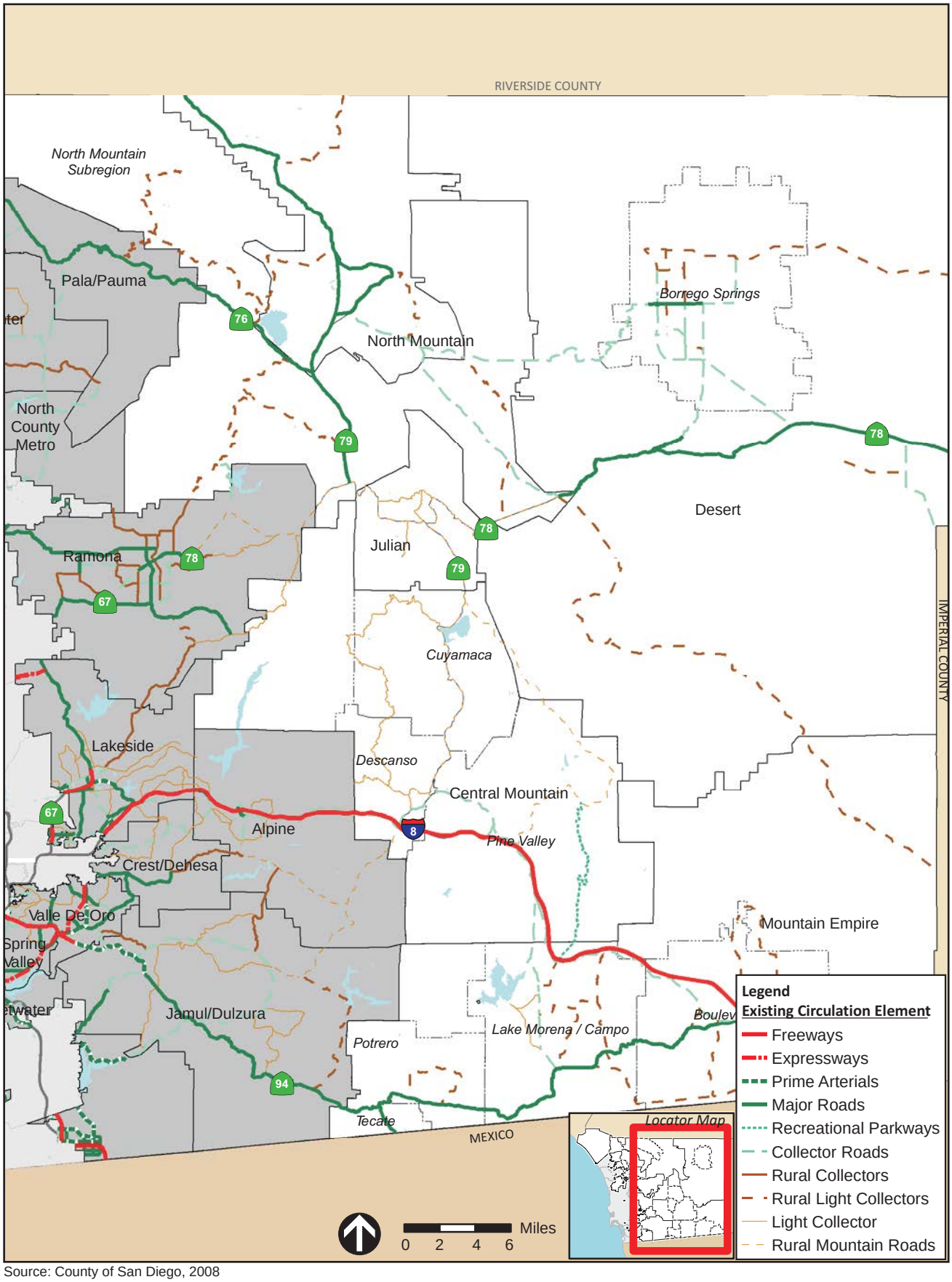

Source: County of San Diego, 2008

**EXISTING NORTH COUNTY MAJOR ROADWAYS** **FIGURE 2.15-1**



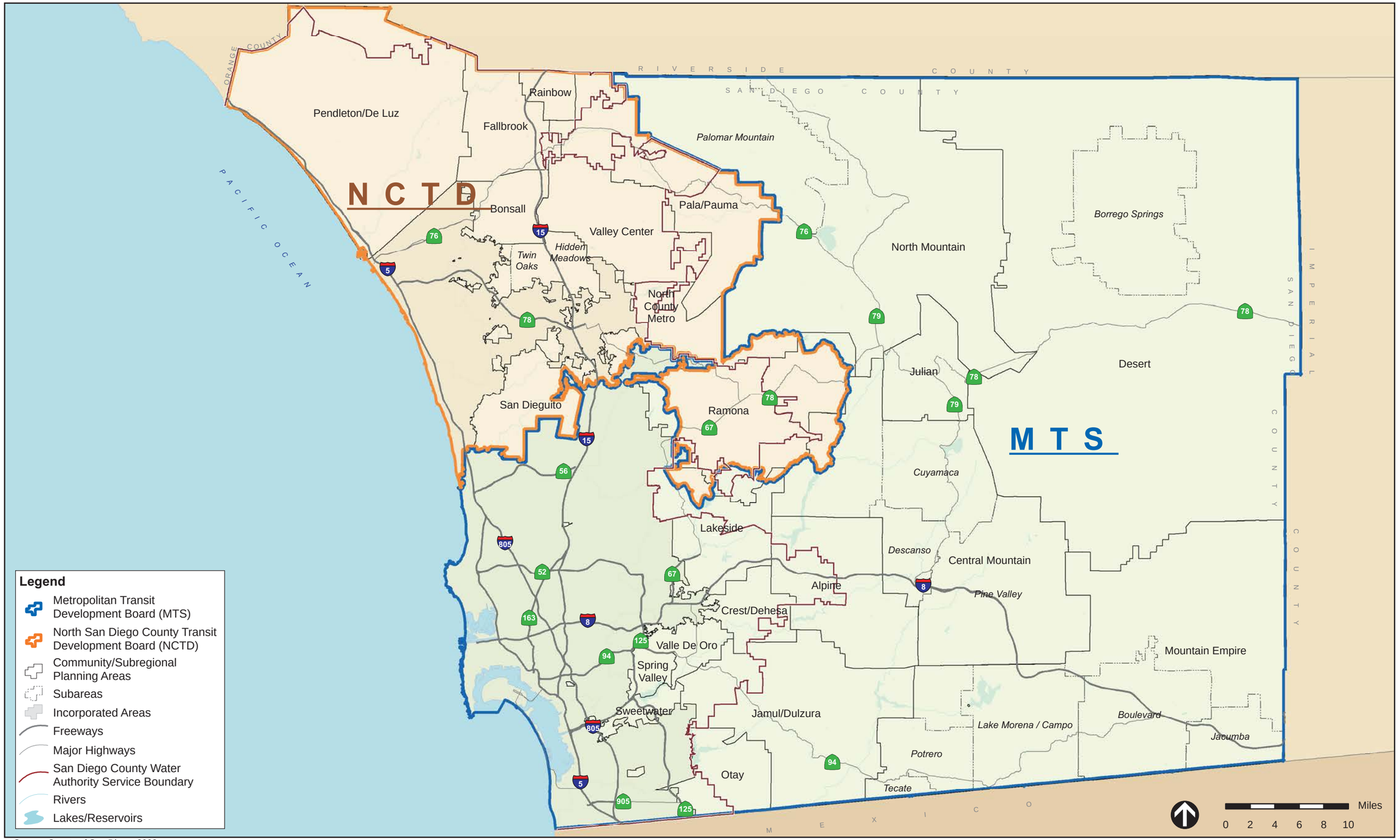

Source: County of San Diego, 2008

**EXISTING EAST COUNTY MAJOR ROADWAYS** **FIGURE 2.15-2**



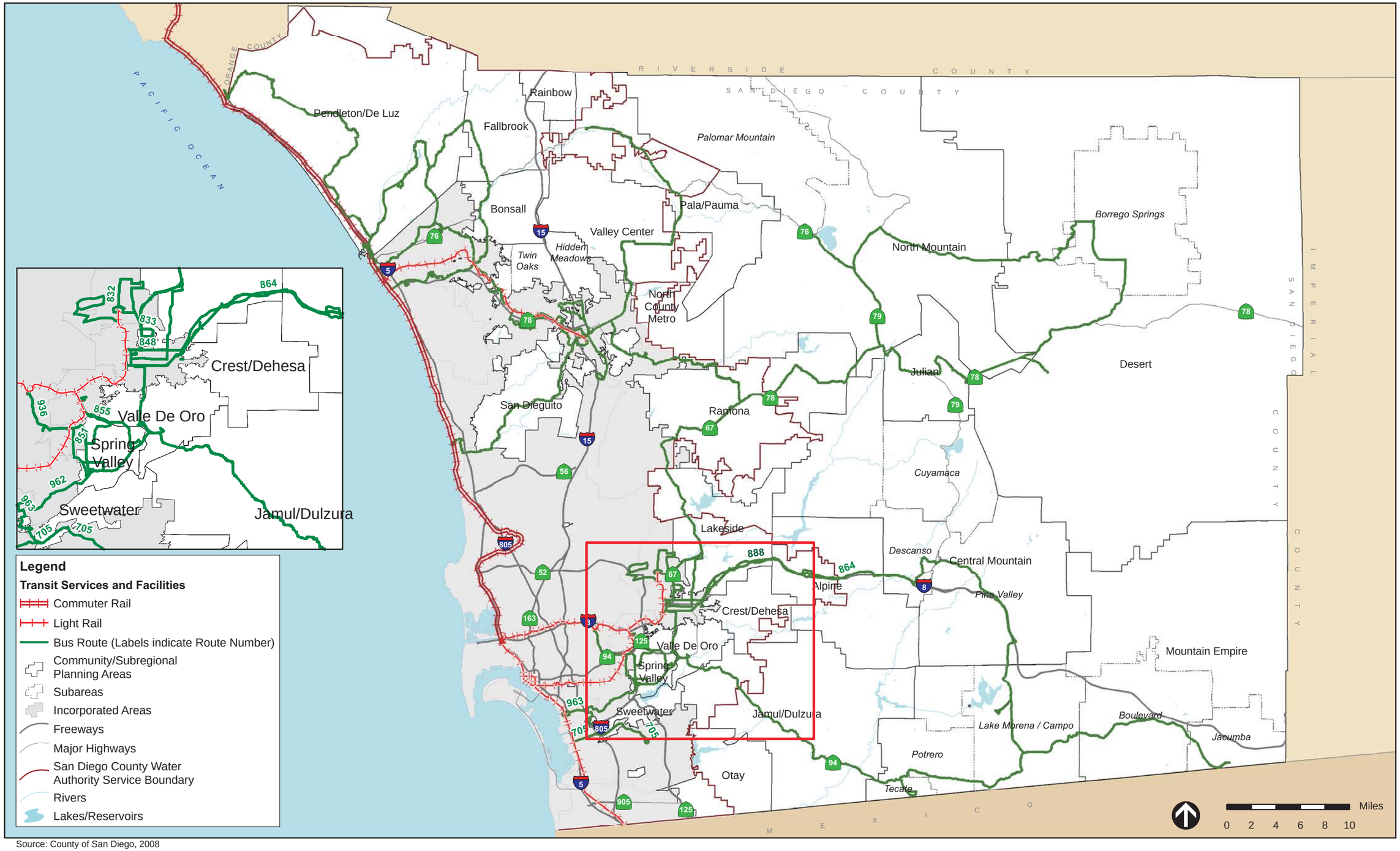

Source: County of San Diego, 2008

**EXISTING BACKCOUNTRY MAJOR ROADWAYS** **FIGURE 2.15-3**



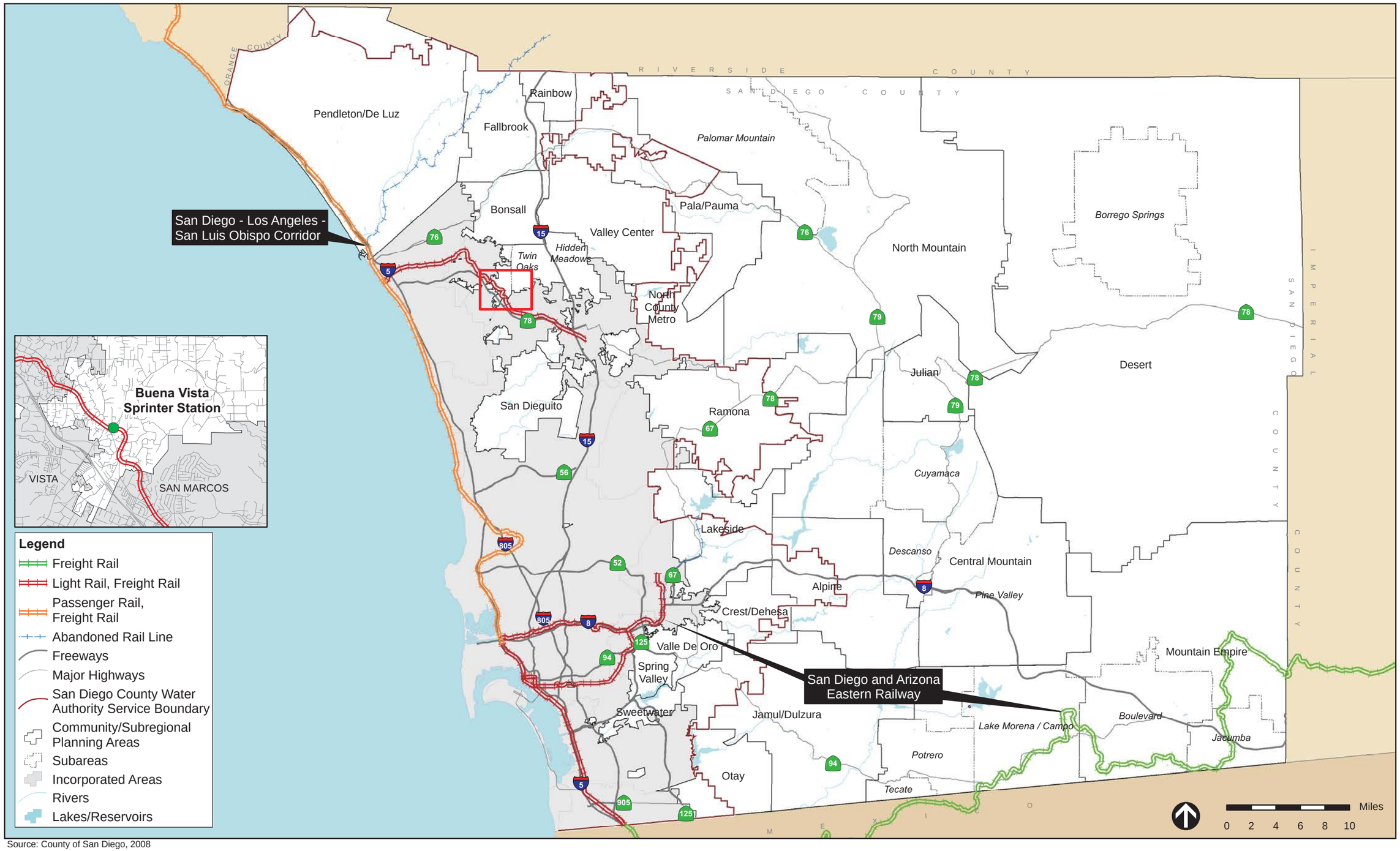

Source: County of San Diego, 2008

**TRANSIT AGENCY SERVICE AREAS** **FIGURE 2.15-4**



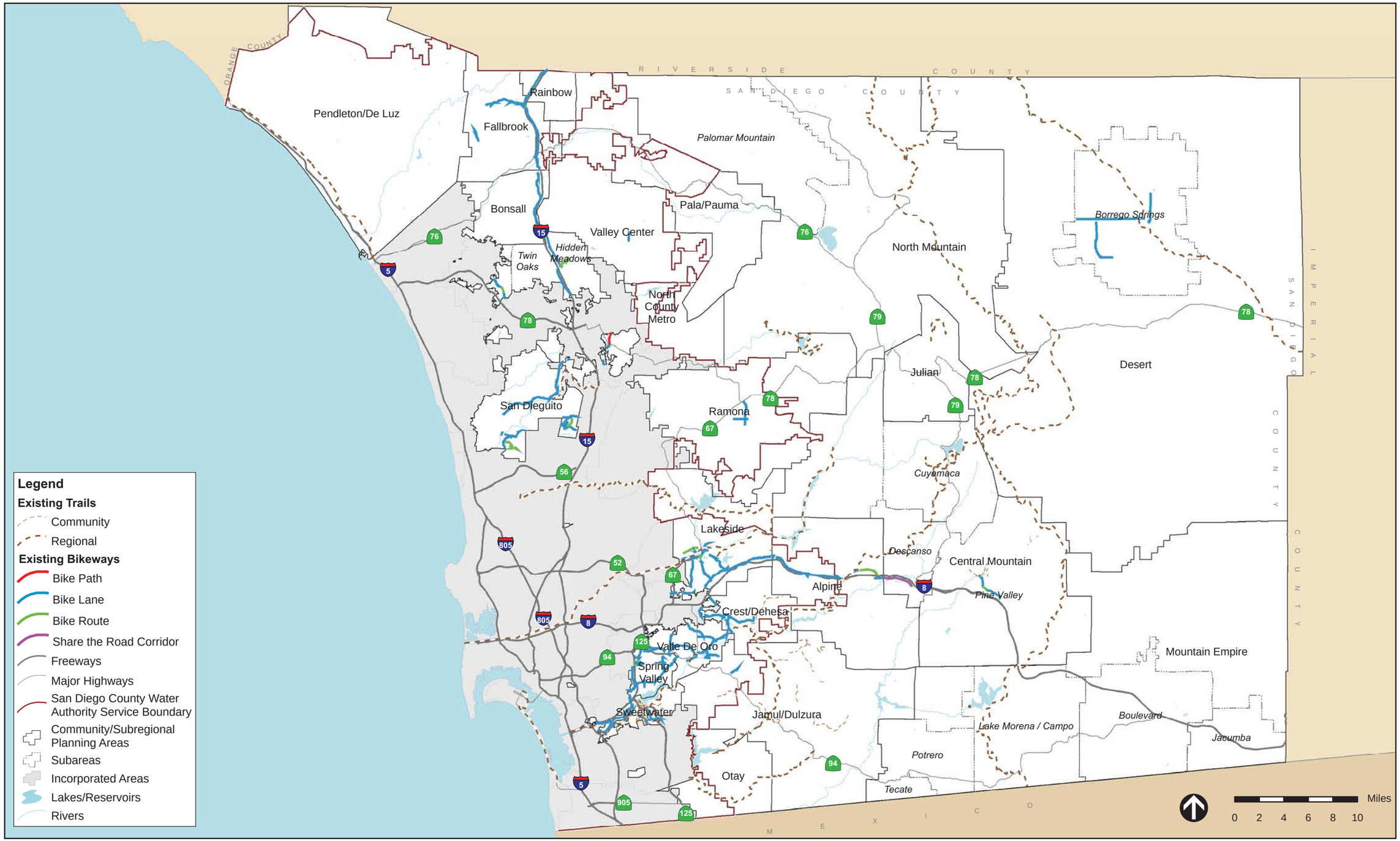

Source: County of San Diego, 2008

**BUS AND RAIL SERVICE FOR THE UNINCORPORATED COUNTY** **FIGURE 2.15-5**




Source: County of San Diego, 2008

**SAN DIEGO COUNTY RAIL ROAD CORRIDORS** **FIGURE 2.15-6**




Source: KTU&A, 2008; County of San Diego, 2008

**BIKE AND PEDESTRIAN ROUTES WITHIN THE UNINCORPORATED COUNTY** **FIGURE 2.15-7**

# 2.16 Utilities and Service Systems

The utilities and service systems discussed in this section include the following: 1) potable water supply and distribution; 2) wastewater collection, transmission and disposal; 3) solid waste disposal; and 4) energy. In addition, this section also analyzes the potential for the proposed County of San Diego General Plan Update to have a significant impact on utilities and service systems. Information contained in the following section has been incorporated from the County of San Diego General Plan Conservation and Open Space Element Background Report (DPLU 2007b), the County of San Diego General Plan Land Use Element Background Report (DPLU 2007c), applicable water district's Urban Water Management Plans, the County of San Diego General Plan Update Groundwater Study (DPLU 2009f), the San Diego County Integrated Waste Management Plan Siting Element, 2005 5-Year Revision, and additional resources as cited throughout the section.

A summary of the impacts to utilities and service systems identified in Section 2.16.3 is provided below.

**Utilities and Service Systems Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Wastewater Treatment Requirements | Potentially Significant | Less Than Significant | Less Than Significant |
| 2 | New Water or Wastewater Treatment Facilities | Potentially Significant | Less Than Significant | Less Than Significant |
| 3 | Sufficient Stormwater Drainage Facilities | Potentially Significant | Less Than Significant | Less Than Significant |
| 4 | Adequate Water Supplies | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 5 | Adequate Wastewater Facilities | Potentially Significant | Less Than Significant | Less Than Significant |
| 6 | Sufficient Landfill Capacity | Potentially Significant | Potentially Significant | Significant and Unavoidable |
| 7 | Solid Waste Regulations | Less than Significant | Less Than Significant | Less Than Significant |
| 8 | Energy | Potentially Significant | Potentially Significant | Less Than Significant |

## 2.16.1 Existing Conditions

### *2.16.1.1 Potable Water Supply and Distribution*

There are a multitude of independent districts and agencies that share the responsibility for the planning and management of the potable water delivery system in San Diego County. The following section evaluates the potable water resources in the County by examining potable water supply and distribution in four categories: 1) Metropolitan Water District (MWD), San Diego County Water Authority (SDCWA) and SDCWA Member Water Districts; 2) Groundwater Dependent Water Districts; 3) Groundwater Dependent Users; and 4) Borrego Valley Aquifer. Borrego Valley Aquifer is included in this discussion because this water supply source has a well documented groundwater overdraft condition. An overdraft condition occurs when year

after year groundwater extraction exceeds the amount of groundwater that is recharged back into the aquifer.

## MWD, SDCWA and SDCWA Member Water Districts

In 2008, MWD provided approximately 71 percent of the total water supply for the entire San Diego County, including incorporated areas. SDCWA is one of MWD's 27 member agencies and is the largest MWD member agency in terms of deliveries. There are primarily 15 water districts that serve the unincorporated County which import the majority of their water from SDCWA through its supplier, MWD. The location and boundaries of the SDCWA member districts discussed below are shown on Figure 2.16-1. Table 2.16-1 identifies the existing (2004) housing and population served by each SDCWA member water district. The following section discusses water supply planning and imported water supply planning issues. The section then provides information regarding existing facilities, service areas and current and projected supply capabilities for MWD, SDCWA and the 15 SDCWA member water districts.

### Planning for Future Water Supply

The California Urban Water Management Planning Act requires that each urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers, or supplying more than 3,000 acre-feet (AF) of water annually, shall prepare, update and adopt an Urban Water Management Plan (UWMP) at least once every five years on or before December 31, in years ending in five and zero. This applies to MWD, SDCWA and its 15 member agencies that serve the unincorporated County. The intent of an UWMP is to present important information on water supply, water usage, recycled water and water use efficiency programs in a respective water district's service area. An UWMP also serves as a valuable resource for planners and policy makers over a 25 year timeframe.

The UWMP process ensures that water supplies are being planned to meet future growth. UWMPs are developed to manage the uncertainties and variability of multiple supply sources and demands over the long term through preferred water resources strategy adoption and resource development target approvals for implementation. Water districts update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their UWMPs. The most current supply and demand projections for water districts are contained in their respective 2005 UWMPs. SDCWA member districts rely heavily on the UWMPs and Integrated Resources Plans (IRPs) of MWD and the Regional Water Facilities Master Plan of SDCWA for documentation of supplies available to meet projected demands.

Single year, normal year and multiple dry water year 2005 UWMP supply and demand assessments for MWD, SDCWA and SDCWA member districts are included in Appendix J of this EIR. These projections are intended to describe the reliability of the water supply and vulnerability to seasonal or climatic shortages, to the extent practical. Normal water years are considered to be years that experience average rainfall for the respective district. Single dry water years are considered one year events of less than average rainfall, surrounded by average rainfall years. Multiple dry water years refer to a series of below average rainfall for particular areas. Projections for multiple dry years are made in five year increments. In the 2005 UWMPs, MWD, SDCWA and all 15 SDCWA member agencies that serve the unincorporated County determined that adequate water supplies would be available to serve existing service areas under normal water year, single dry water year and multiple dry water

year conditions through the year 2030, if Water Authority and member agency supplies are developed as planned, along with implementation of MWD's IRP.

**Imported Water Supply Issues**

Since the preparation and adoption of the 2005 UWMPs, multiple events have occurred that may affect the accuracy of the projections included in the 2005 UWMPs. Factors such as cutbacks in water importation supplies from MWD and SDCWA were not accounted for in the 2005 UWMP supply and demand projections. For example, the Colorado River, a major source of imported supplies for the region, has experienced drought conditions for eight of the last nine years. Additionally, the State Water Project (SWP) in northern California experienced three years (2006-2008) of extreme drought conditions which substantially depleted storage in reservoirs throughout the whole SWP, including San Diego County. After a record dry spring that dramatically curtailed snow runoff from the Sierra Nevada Mountains, Governor Schwarzenegger declared an official Statewide drought on June 4, 2008. Following the Governor's action, the MWD Board of Directors issued a water supply alert for its six-county service area, urging local jurisdictions to adopt and implement water conservation ordinances and to significantly increase efforts and programs to conserve water. The County of San Diego maintains a Water Conservation and Landscape Design Manual, which implements Section 6712 (d) of the County Zoning Ordinance.

In addition to extreme drought conditions, in August 2007, a U.S. District Court decision was issued to protect the endangered Delta smelt (fish). This federal court ruling set operational limits on pumping in the Sacramento-San Joaquin Delta from December 2007 to June 2008 to protect the Delta smelt. As a result of this ruling, MWD is estimated to see as much as a 20 to 30 percent reduction in SWP supplies in 2008 and beyond. It should be noted that actual supply curtailments for MWD, due to this court decision, are contingent upon fish distribution, behavioral patterns, weather, Delta flow conditions, and how much water supply reductions are divided between State and federal projects. Since the SDCWA and SDCWA member agencies import large quantities of water from MWD, their water supply has been impacted by this court ruling. As a result, local water agencies have had to rely on contingency and emergency sources of water, including local groundwater and storage supplies, as well as voluntary and mandatory restrictions, to lessen direct impacts on water availability for their customers.

Additionally, climate change due to global warming also creates new uncertainties that significantly affect California's water resources and lessen the reliability of the 2005 UWMPs. This issue is further discussed in Section 2.17, Climate Change, of this EIR.

All 2005 UWMPs include a drought management or shortage contingency analysis section, which identifies how the agency will manage shortages. However, these UWMPs do not account for the severity or longevity of the above-mentioned difficulties in providing enough supply for the region's demand. In preparing 2010 UWMPs, MWD, SDCWA and SDCWA member water districts are going to account for these issues and will likely place more emphasis on conservation, water recycling, and expanding local supplies through methods such as seawater desalination.

**Metropolitan Water District (MWD)**

MWD supplies water to approximately 18 million people in a 5,200-square mile service area that includes portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego

counties. The MWD service area covers a 70-mile-wide strip of the Southern California coastal plain, extending from the City of Oxnard on the north to the U.S./Mexico international border on the south. Close to half of the water used in this region is supplied by MWD, and about 90 percent of the regional population receives at least some of its water from MWD. MWD provides approximately 71 percent of the total water supply for the entire San Diego County, including incorporated areas. SDCWA is one of MWD's 27 member agencies and is the largest MWD member agency in terms of deliveries. In Fiscal Year 2006/7, SDCWA purchased 662,801 acre feet (AF) of water, or about 28 percent of all the water MWD delivered. Supply and demand projection information for MWD is included in its 2005 Regional UWMP, adopted on November 8, 2005.

MWD's long-term strategy for a sustainable water supply is outlined in its IRP (2004), which is currently being updated. This plan requires that an agency develop a water management plan for incorporation in a regional process to integrate its plan with other agencies having responsibilities for water management. The MWD IRP, updated every five years, was first adopted in 1996 and last updated in 2004. MWD's IRP identifies a mix of resources (imported and local) that will provide 100 percent reliability for full-service demands through the attainment of regional targets set for conservation, local supplies, SWP supplies, Colorado River supplies, groundwater banking, and water transfers through the year 2030. The IRP sets regional goals for the development of MWD's various water resources and is the blueprint that guides MWD's efforts to increase water supplies and lower demands. The IRP is also an important foundation for water planning needs throughout Southern California. State law requires water districts to have long-term water plans in order to successfully manage growth and plan for the future.

MWD imports water from two primary sources for Southern California. One source is the Colorado River, which is connected to the District's six-county service area through a 242-mile aqueduct. Another source is water from Northern California, which supplies water through a series of dams and aqueducts known as the SWP. In addition, MWD is active in increasing local supplies through sponsoring recycling, conservation, groundwater recovery and desalination efforts. Imported supplies also help to replenish local groundwater basins. MWD's Board of Directors sets the targets for lowering demands and securing the necessary supplies in the IRP. The so-called "Preferred Resource Mix" is identified based on extensive technical modeling, IRP workgroups, and stakeholder involvement. The 2004 MWD IRP assumed that new local efforts, both increasing supplies and lowering demands, would meet the needs of population growth. Given the challenges facing imported supplies, it is widely expected that the 2009 IRP will have an even greater focus on local projects and control of demand. The precise resource mix (including recycling, desalination, and more conservation) will be identified in the 2009 IRP process (MWD 2009).

The MWD IRP also includes a planning buffer supply intended to mitigate the risks associated with implementation of local and imported supply programs. The planning buffer identifies an additional increment of water that could potentially be developed if other supplies are not implemented as planned. As part of implementation of the planning buffer, MWD periodically evaluates supply development to ensure that the region is not under or over developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate water supplies to meet future demands.

On April 14, 2009, MWD announced that it will cut water deliveries to the Southern California region by 13 percent in 2009. MWD will cut back deliveries to the SDCWA and MWD's other member agencies starting July 1, 2009.

**San Diego County Water Authority (SDCWA)**

The SDCWA service area covers approximately 922,381 acres, services a population of almost three million people, and encompasses the western third of San Diego County. SDCWA has 24 member agencies, 15 of which provide water to unincorporated areas of San Diego County. The water that SDCWA imports serves 75-95 percent of the total water consumed by the population of the San Diego region. Historically, SDCWA has relied on imported water supplies purchased from the MWD to meet the needs of its member agencies. However, this imported water only serves a portion of the total unincorporated population. Geographically, the majority of the unincorporated area is reliant on separate groundwater dependent districts or private wells, which are unaffiliated with SDCWA. These independent districts are discussed in more detail in the following section.

The SDCWA is responsible for ensuring a safe and reliable water supply to support the region's $130 billion economy and the quality of life for three million residents. Because of the County's semi-arid climate and limited local water supplies, SDCWA provides up to 90 percent of the water used in the San Diego region by way of imported water from MWD, a transfer agreement with Imperial Irrigation District (IID) and agreements for the lining of the All American and Coachella Canals, via the Quantification Settlement Agreement of October 2003.. Most of this water is obtained from the Colorado River and the SWP through a massive system of pipes and aqueducts. The SDCWA has determined that the best way to ensure a reliable water supply for the future is to diversify its water supply portfolio. Diversification includes water that originates locally, such as recycled water and desalinated seawater. The SDCWA Regional Water Facilities Master Plan serves as the roadmap for identifying a diverse mix of water supply sources and implementing the associated facilities and projects needed through 2030 to ensure a safe and reliable supply.

The 2002 Regional Water Facilities Master Plan, planned to be updated in 2012, analyzes future water demands and different ways to meet those demands. It describes three different water supply alternatives: 1) Northern Alternative, 2) Western Alternative, and 3) Eastern Alternative. The Northern Alternative would consist of the construction of a new, sixth pipeline in the northern half of San Diego County to convey additional water from MWD. The Western Alternative would result in the development of additional water supplies from the west through construction of seawater desalination facilities. The Eastern Alternative would result in the construction of a new pipeline from the east to deliver water from the Colorado River. The SDCWA Board of Directors selected the Western Alternative, seawater desalination, as the preferred alternative for providing a new, safe and reliable water supply for the region. Seawater desalination removes salts and other impurities to produce very safe, high-quality water for drinking and other potable water uses (SDCWA 2004). As part of the SDCWA's diversification of supply, a Carlsbad desalination plant is scheduled to begin construction in 2009 and is expected to be operational before the end of 2011. This project has received final approvals from the required regulatory and permitting agencies in the State, including the California Coastal Commission, State Lands Commission, and RWQCB.

In addition to the 2004 Regional Water Facilities Master Plan, the SDCWA, County of San Diego and City of San Diego collaboratively maintain an Integrated Regional Water Management Plan (IRWMP) for the San Diego region. The Final San Diego IRWMP, adopted in 2007, reflects a comprehensive approach to water resources planning that integrates ongoing local planning efforts in order to maximize regional water management benefits and resolve any existing or potential conflicts. The San Diego IRWMP identifies programs and projects that best

achieve the region's goals to optimize water supply reliability, and protect and enhance water quality, while providing stewardship of natural resources. The 2007 San Diego IRWMP includes a description of the region and participants, regional objectives and priorities, water management strategies, implementation, impacts and benefits, data management, financing, stakeholder involvement, relationship to local planning, and State and federal coordination. IRWM planning was derived from California Proposition 50, approved by the voters in 2002, which set aside $380 million for IRWMP-related grants (SDIRWM 2010).

SDCWA also has a Drought Management Plan (May 2006) which provides its member agencies with a series of potential actions to engage when faced with a shortage of imported water supplies due to prolonged drought conditions. Such actions help avoid or minimize impacts of shortages and ensure an equitable allocation of supplies throughout the San Diego region.

The SDCWA's most recent planning documents, the 2005 Urban Water Management Plan and 2006-2007 Annual Report, concluded that water supplies would be sufficient through 2030, if Water Authority and member agency supplies are developed as planned, along with the implementation of MWD's IRP. However, with the majority of its supplies coming from MWD, the SDCWA has also been affected by the federal court decision regarding the Delta smelt and the Statewide drought. These two issues have primarily affected allocations from the SWP, which has accounted for approximately 30 percent of the SDCWA's water supply in recent years. Additionally, as discussed above, uncertainties also exist with SDCWA's other major water source, the Colorado River.

To prepare the San Diego region for potential water shortages, in March 2008 the SDCWA released a Model Drought Response Ordinance to its member agencies. The Model Drought Response Ordinance identifies four drought response levels that contain water-use restrictions that will help achieve demand reduction during water shortages. Member agencies are using the SDCWA's model to update their own ordinances to help provide consistency throughout the region on response levels and water use restrictions that may be taken to reduce water demand.

Responding to reduced water supplies caused by regulatory restrictions, lingering drought, and cutbacks from MWD, the SDCWA announced on April 23, 2009 that it will cut water deliveries to its member water agencies by 8 percent effective July 1, 2009. To help achieve the required reduction in regional water use, the SDCWA Board also immediately declared a Level 2 "Drought Alert" condition. This action enables the SDCWA's 24 member agencies to adopt mandatory conservation measures for residents and businesses, such as use restrictions or tiered water rates that charge more for excessive water use.

**SDCWA Member Water Districts**

The following discussion provides information regarding existing facilities, service areas and current and projected supply capabilities for the 15 SDCWA member water districts.

***Fallbrook Public Utility District (FPUD)***

The FPUD provides water service to the unincorporated areas of Fallbrook. Specifically the service area includes the Fallbrook Country Town Area and surrounding vicinity, and the eastern portion of the De Luz area in northern San Diego County. The FPUD service area covers 28,000 acres and has 8,970 connections. FPUD operates approximately 230 miles of

pipeline, four lift stations, one groundwater well, and the Red Mountain Reservoir, which has a storage capacity of 1,300 AF. FPUD imports 99 percent of its water supply from SDCWA and obtains one percent from local water sources. FPUD provides 47 percent of its service to residential land uses, 47 percent to agricultural land uses, and 6 percent to commercial land uses. The average daily consumption for FPUD is 47.7 AF. FPUD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Helix Water District (HWD)*

The HWD provides water service to the cities of El Cajon, La Mesa, Lemon Grove, and portions of Spring Valley, Sweetwater, Crest/Dehesa, Valle de Oro, and Lakeside Community Planning Areas (CPAs). HWD service area covers 31,327 acres and has 54,477 connections. The HWD service area is nearly completely built out, and does not have territory to expand in the future. HWD operates 713 miles of pipeline, 21 lift stations, one groundwater well, the R.M. Levy Water Treatment Plant, and four reservoirs. These reservoirs include Cuyamaca Lake, capacity 3,829 million gallons (mg); Lake Jennings, capacity 3,189 mg; El Captain Lake, capacity 3,267 mg; and various storage tanks, combined capacity 70 mg. The R.M. Levy Water Treatment Plant has a treatment capacity of 106 million gallons per day (mgd). HWD imports 82 percent of its water supply from SDCWA and obtains 18 percent from local water sources. HWD provides 81 percent of its service to residential land uses, 12 percent to industrial/commercial land uses, and 7 percent to public land uses. Average daily consumption for HWD is 36 mgd.

### *Lakeside Water District (LWD)*

On November 15, 2006, LWD consolidated services with the former Riverview Water District and became an independent member of the SDCWA. The LWD water service area includes 20 square miles of the Lakeside CPA, including Eucalyptus Hills, Moreno Valley and Muth Valley. LWD service area has approximately 7,055 connections. Seventy-three percent of the LWD water supply is imported from the SDCWA and the remaining 27 percent of the water supply is derived from groundwater wells. LWD operates six wells, 10 pump stations, 11 reservoirs (total capacity 12.7 mg), 90 miles of pipelines, and the Vine Street Groundwater Treatment Plant (capacity 1.5 mgd). One LWD well also operates a MTBE removal system. MTBE is a gasoline additive that negatively affects groundwater quality. Ninety-eight percent of LWD water service is provided to residential land uses. The remaining water service is provided to industrial, agricultural and commercial land uses. Average daily consumption for LWD is 4 mgd.

### *Olivenhain Municipal Water District (OMWD)*

The OMWD provides water service to the unincorporated areas of Olivenhain Valley, Fairbanks Ranch, Mt. Israel, Elfin Forest, Rancho Santa Fe, 4S Ranch Specific Plan Area, Whispering Palms, and portions of the cities of Carlsbad, Encinitas, San Diego, San Marcos, and Solana Beach. OMWD's service area covers 48 square miles and has 14,501 connections. OMWD operates approximately 375 miles of pipeline, 16 storage tanks, the Olivenhain Reservoir (24,789 AF capacity), and the Roger Miller Reservoir. Additional facilities in this District include the Olivenhain Water Treatment Plant and two hydroelectric plants. OMWD imports 100 percent of its water supply from SDCWA. OMWD provides 86 percent of its water service to residential, industrial or commercial land uses and 14 percent of its service to agricultural land uses. The average daily consumption for this District is 41.1 mgd. OMWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Otay Water District (OWD)*

The OWD provides water services to southern El Cajon, La Mesa, Rancho San Diego, Jamul, Spring Valley, Bonita, eastern Chula Vista, the Eastlake community, and Otay Mesa along the international border with Mexico. OWD covers 80,320 acres and has approximately 41,500 connections. OWD has approximately 450 miles of pipelines, 21 pump stations, and 37 reservoirs with a total storage capacity of 190 mg. One hundred percent of the OWD water supply is imported from SDCWA. OWD provides 90 percent of its water service to residential land uses and 10 percent to commercial and industrial land uses. Average daily consumption for OWD is 36,970 AF. OWD maintains five major systems to supply and deliver water, which include Hillsdale, Regulatory, La Presa, Central, and Otay Mesa. OWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Padre Dam Municipal Water District (PDMWD)*

The PDMWD provides water service to portions of the unincorporated communities of Alpine, Crest/Dehesa, and Lakeside. The District also wholesales water to the Lakeside and Riverview Water Districts. PDMWD covers 54,400 acres and has approximately 21,454 connections. PDMWD has approximately 353 miles of pipelines, 26 potable water reservoirs, one recycled water reservoir, and 16 lift stations. One hundred percent of PDMWD's water supply is imported from SDCWA. PDMWD has two distinct service areas: western and eastern. The PDMWD western area has higher residential densities and more intensive commercial land uses, while the eastern area has semi-rural densities and more agricultural land uses. PDMWD provides 88 percent of its water service to residential land uses, 10 percent to commercial land uses, and two percent to agricultural land uses. The average daily consumption for PDMWD is 38 mgd during peak summer demand and 25 mgd during the rest of the year. PDMWD also provides wastewater service to customers within its service area. These services are discussed below in Section, 2.16.1.2 Wastewater Collection, Treatment and Disposal.

### *Rainbow Municipal Water District (RMWD)*

The RMWD provides water service to the unincorporated areas of northwestern San Diego County, specifically the unincorporated communities of Rainbow, Bonsall, and a portion of Fallbrook. The RMWD service area is bounded by Camp Pendleton on the west, the City of Vista on the south, the Fallbrook Community Planning Area on the east and the County of Riverside on the north. RMWD covers 49,800 acres and has approximately 6,300 connections. RMWD has 17 reservoirs (total capacity 1,350 AF), 46 pressure stations, and approximately 300 miles of pipeline. The majority of water service is provided to agricultural customers and the average daily consumption of RMWD is a maximum of 58,619 gpm.

In May of 2003, the RMWD declared an infrastructure state of emergency due to increasing occurrences of infrastructure failures. RMWD is now experiencing more than 80 pipeline breaks annually and the number is increasing. In comparison, an average healthy system with a good preventive maintenance program would only have a few minor leaks per year. Many of these failures can be attributed to the age of the water pipelines and pump stations, many of which are more than 50-years old. Thus far, RMWD has been unable to invest in preventive maintenance due to an ordinance restricting them from going in debt for more than one million dollars. RMWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Ramona Municipal Water District (Ramona MWD)*

The Ramona MWD provides water service to approximately 57 percent of the Ramona CPA. Ramona MWD covers 45,796 acres and has approximately 9,477 connections. Ramona MWD operates 272 miles of pipeline, 13 water pump stations, and the Lake Ramona Reservoir, which has a storage capacity of 13,400 AF. RMWD also has one treatment facility, the John C. Bargar Water Treatment Plant. This plant has a treatment capacity of 5.3 mgd; however, the plant is currently not in operation and although rated at 5.3 mgd, has been unable to operate above 3.0 mgd as a result of recent changes in drinking water standards. The average daily consumption for Ramona MWD is 10.86 mgd. Ramona MWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Rincon del Diablo Municipal Water District (RDDMWD)*

The RDDMWD provides water service to the unincorporated areas of North County Metro, San Dieguito, and the cities of Escondido, San Marcos, and San Diego. RDDMWD covers 26,760 acres and has approximately 7,400 connections. RDDMWD has 129 miles of pipeline, four lift stations, and 10 reservoirs. Water service is provided to residential land uses (66 percent), agricultural land uses (13 percent), commercial land uses (12 percent) and agricultural land uses (9 percent). The average daily consumption for RDDMWD is 22.9 AF.

### *Santa Fe Irrigation District (SFID)*

SFID provides service to the unincorporated communities of Rancho Santa Fe, Fairbanks Ranch, and the City of Solana Beach. SFID has a 10,359 acre service area with 6,313 connections. Approximately 76 percent of SFID water supply is imported from SDCWA and about 24 percent is derived from local supplies. SFID operates 135 miles of pipeline, the RE Badger Clearwell Reservoir (9 mgd capacity), the Larrik Reservoir (6 mgd capacity) and the RE Badger Filtration Plan (40 mgd capacity). SFID provides approximately 86 percent of its water service to residential land uses, six percent to irrigation land uses, four percent to commercial land uses, two percent each to agricultural and other land uses, and one percent to public land uses. The SFID service area is 98 percent built-out, with little capability for growth left. The average daily consumption for SFID is 12 mgd.

### *Sweetwater Authority/South Bay Irrigation District (SA/SB)*

The SA/SB provides water service to National City, the northern part of Bonita, and the western portion of Chula Vista. SA/SB serves approximately 32,560 connections over a service area of 20,480 acres. Depending upon the amount of rainfall received, as much as 70 percent of the water supply is obtained from the SDCWA and as little as 30 percent is obtained from local sources. SA/SB operates 388 miles of pipelines, 23 pump stations, 9 groundwater production wells, the Perdue Water Treatment Plant (30 mgd capacity), the Reynolds Groundwater Desalination Facility (4 mgd capacity), Sweetwater Reservoir (28,079 AF capacity), and Loveland Reservoir (25,387 AF capacity). SA/SB provides 88 percent of its water service to residential land uses, 18 percent to commercial land uses, nine percent to government land uses, two percent to industrial land uses, and less than one percent to agricultural land uses. Average daily consumption for SA/SB is 19.5 mgd.

### *Vallecitos Water District (VWD)*

The VWD provides water service to the City of San Marcos, portions of the City of Vista, Escondido, and Carlsbad, and the unincorporated areas/communities of Twin Oaks, portions of

San Dieguito, and North County Metro. VSD serves approximately 19,500 connections over a 28,800 acre service area. One hundred percent of the water supply is imported from SDCWA. VWD operates nine pump stations, 329 miles of pipeline and 16 reservoirs (227 AF total capacity). Average daily consumption for VWD is 17 mgd. VWD provides approximately 90 percent of its water supply to residential land uses, four percent to commercial land uses, three percent to landscape uses, and less than one percent to industrial, institutional, governmental, and agricultural land uses. VWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Valley Center Municipal Water District (VCMWD)*

The VCMWD provides water service to the residents of Valley Center and surrounding areas (generally located east of I-15). VCMWD serves approximately 7,600 meters, seven aqueduct connections and a service area of 62,100 acres. VCMWD operates 26 pump stations, 97 pumps, 15 pressure reducing stations, 270 miles of pipeline, and 79 reservoirs and storage facilities (415 AF total capacity). All of VCMWD's water is imported from SDCWA. Land uses served include agriculture (82 percent), residential (14 percent), and commercial (four percent). Average daily consumption for VCMWD is approximately 34.7 mgd. VCMWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Vista Irrigation District (VID)*

The VID provides water service to the City of Vista, portions of the Cities of Escondido, Oceanside, and San Marcos, and the unincorporated areas located on the periphery of the Cities of San Marcos and Vista, and portions of the North County Metro Subregion, including the Twin Oaks Valley area. VID serves approximately 27,317 connections over a service area of 21,316 acres. Approximately 70 percent of VID's water supply is imported from SDCWA and the remaining 30 percent comes from groundwater sources that include the Warner Basin aquifer and surface diversion sources such as Lake Henshaw. VID operates 462 miles of pipeline, eight lift stations, the Escondido/Vista Filtration Plant (90 mgd capacity) and 14 reservoirs (48 mg combined capacity). VID supplies 73 percent of its water service to residential land uses, 18 percent to commercial/industrial land uses, and nine percent to agricultural land uses.

### *Yuima Municipal Water District (YMWD)*

The YMWD provides water service to the unincorporated areas in the vicinity of Pauma Valley in northern San Diego County. YMWD serves a service area of 13,460 acres. YMWD has four pump stations, approximately 43 miles of pipeline connected directly to MWD aqueducts, and 11 reservoirs (46 AF total capacity). Forty-two percent of the YMWD water supply is imported from SDCWA and 58 percent is derived from local groundwater sources, including deep-water wells and the San Luis Rey groundwater basin. YMWD provides 98 percent of its water service to agricultural land uses and the remaining two percent to residential land uses.

## Groundwater Dependent Water Districts

The 14 groundwater dependent water districts listed below serve the unincorporated areas of San Diego County without the ability to receive imported water directly from SDCWA. Each of these districts relies on groundwater as the only source for their water supply. Table 2.16-2, identifies the existing (year 2004) housing units and population served by each groundwater

dependent water district. The districts listed below are not required to produce UWMPs because they either do not serve over 3,000 customers or do not distribute over 3,000 AF of water annually. Additional information regarding groundwater quality and distribution is discussed in Section 2.8, Hydrology and Water Quality. Information on additional groundwater dependent users within the unincorporated County and the groundwater conditions of the Borrego Valley aquifer is further discussed below.

### *Borrego Springs Park Community Service District (BSPCSD)*

The BSPCSD currently provides water service to the Borrego Springs Country Club located in the heart of the unincorporated community of Borrego Springs, within the boundaries of the Country Town area. BSPCSD is located entirely within the Borrego Springs Subregion and is completely surrounded by the Borrego Water District, a separate, independent water district. BSPCSD serves approximately 94 connections over a 1,200 acre service area. One hundred percent of the BSPCSD water supply comes from local wells. This District has two pump stations, five miles of pipelines and four groundwater wells. Average daily consumption for BSPCSD is 186,000 gallons per day (gpd). BSPCSD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Borrego Water District (BWD)*

In 1962, the BWD was formed as a landowner-voter district under the provisions of the California Water District Act to protect the water rights in Borrego Valley. However, the District was inactive until 1979 when the San Diego LAFCO sanctioned the District to exercise its latent water authority. The BWD provides water service to areas of Borrego Valley, excluding the area served by the BSPCSD. BWD serves approximately 1,679 connections over a service area of 6,130 acres. One hundred percent of BWD water supply comes from groundwater. BWD operates 13 groundwater wells, two pump stations, 82 miles of pipeline and six reservoirs (total capacity 4.05 mg). Ninety percent of BWD water service is provided to residential land uses and 10 percent is provided to commercial land uses. Average daily consumption for BWD is 3.42 mgd. A majority of the water supplied to agricultural users within Borrego Valley comes from privately owned wells. The BSPCSD is in process of a merger to become part of the BWD. BWD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal. Additional discussion on the groundwater conditions within the Borrego Valley Aquifer are discussed below.

### *Campo Water and Sewer Maintenance District (CWSMD)*

The CWSMD is located in the southeastern portion of the County and provides water service to several County facilities and local residents. One hundred percent of CWSMD water supply comes from three local wells. CWSMD operates two miles of pipeline and three storage tanks (total capacity 1.6 mg). Land uses served by the CWSMD include residential and commercial uses and average daily consumption for the CSA is 115,000 gpd.

### *Canebrake County Water District (CCWD)*

The CCWD provides water service to approximately 78 connections over a service area of 950 acres. One hundred percent of CCWD water supply comes from one local groundwater well. The average daily consumption for the CCWD is 3,500 gpd and all water service is provided to residential land uses. CCWD is surrounded by the Anza-Borrego State Park and federally

owned land, and many of its customers are seasonal visitors and/or part-time residents. For this reason, CCWD does not anticipate future growth.

### *Cuyamaca Water District (CWD)*

The CWD provides water service to approximately 151 connections over a 200 acre service area. One hundred percent of CWD water supply comes from four local groundwater wells. CWD operates one pump station, five miles of pipeline and two reservoirs (total capacity 335,000 gallons). Ninety-nine percent of CWD water service is provided to residential land uses and one percent is provided to commercial land uses. Average daily consumption for CWD is 36,000 gpd.

### *Descanso Community Services District (DCSD)*

The DCSD provides water service to an area situated north of Old Highway 80, west of State Route (SR) 79, and south of Cuyamaca Rancho State Park within the Descanso CPA. Descanso serves approximately 313 connections. The District owns two groundwater wells, two storage tanks (total capacity 770,000 gallons), 29 fire hydrants and 37 standpipes (of various sizes). One hundred percent of DCSD water supply is from groundwater and the average daily consumption is 100,000 gpd. DCSD provides 94 percent of its water service to residential land uses and six percent to commercial land uses.

In 2002, water production could not keep up with water demand. This was a result of DCSD relying heavily on one well to supply the needs of 313 customers, which caused an extraction demand that exceeded extraction capacity. To provide an additional volume of water, the groundwater well pump was lowered 126-feet to obtain adequate water. It should be noted that Descanso itself does not have a depleted water supply, as shown in wells monitored by the County; however, the supply from one well is not sufficient to keep up with demand.

### *Jacumba Community Services District (JCSD)*

The JCSD provides water service to the small, rural community of Jacumba located between I-8 and the U.S./Mexico international border. JCSD serves approximately 234 connections over a service area of 435 acres. One hundred percent of the JCSD water supply comes from groundwater and the District operates two active groundwater wells, one pump, seven miles of pipeline, and two reservoirs (total capacity 202,000 gallons). Ninety percent of JCSD water service is provided to residential land uses and the remaining 10 percent is provided to commercial land uses.

### *Julian Community Services District (Julian CSD)*

The Julian CSD provides water service to residential and commercial land uses in the historic town site and the schools in the Julian CPA. Julian CSD provides 183 potable water connections over a service area of 270 acres. Julian CSD owns one pump station, five miles of pipelines, one treatment facility (capacity 125 gallons per minute (gpm)) and two reservoirs (total capacity 500,000 gallons). One hundred percent of the Julian CSD water supply comes from the District's seven groundwater wells. In addition to groundwater wells, the District also has a well field in the vicinity of the headwaters of Santa Ysabel Creek. Average daily consumption in Julian CSD is 0.06 mgd.

The water supply for Julian CSD lies in limited, confined areas of water-bearing, fractured, subsurface rock. This geology results in a maximum capacity for the Julian CSD of 200,000 gpd. In the past, Julian CSD has had to establish connection moratoriums and punitive water

rate schedules to limit further depletion. Complicating the already serious problem of water availability is a contamination issue facing the aquifer under the historic town site. In 1976, it was discovered that a gasoline leak from a gas station located in Julian had contaminated the groundwater supply. The co-mingled stream of gasoline and fuel by-products is addressed under the San Diego RWQCB Clean-Up and Abatement Order 94-09. Through this order, the Julian CSD was prohibited from expanding beyond its current boundaries until the health risks associated with the contaminated groundwater had been resolved. However, this prohibition does not restrict development from occurring within the current boundaries of Julian CSD, provided the development is located outside of the affected area. Groundwater is currently being pumped within the Julian town center, although outside of the prohibited areas of pumping. To date, the groundwater in the aquifer is still contaminated, and will likely remain contaminated for the foreseeable future. Therefore, the District's sole source of uncontaminated water is located at the base of Volcan Mountain. Julian CSD also provides wastewater service to customers within its service area. These services are discussed below in Section 2.16.1.2, Wastewater Collection, Treatment and Disposal.

### *Majestic Pines Community Services District (MPCSD)*

The MPCSD is located east of the historic Country Town of Julian and includes the neighborhoods of Kentwood and Whispering Pines in the Julian CPA. MPCSD serves approximately 684 connections over a 1,000 acre service area. One hundred percent of the MPCSD water supply is obtained from local wells. MPCSD operates two groundwater wells, two pump stations, 25 miles of pipeline, and three reservoirs (total capacity 790,000 gallons). MPCSD also operates two treatment facilities, Whispering Pines Treatment Plant and Kentwood Treatment Plant, each with a 125 gpm capacity. Average daily consumption for MPCSD is 100,000 gpd. All water service is provided to residential land uses.

The MPCSD groundwater basin supply has been identified as being very limited and not readily rechargeable due to the nature of the fractured rock aquifers that serve the District. It is also estimated that the MPCSD needs to double its existing capacity in order to adequately meet current demands. Therefore, drilling projects are currently underway to try and accomplish this task. However, the District does not anticipate being able to meet the demands of further development.

### *Mootamai Municipal Water District (MMWD)*

The MMWD provides fire suppression services and was formed to protect the water rights associated with local wells and the groundwater resources of Pauma Creek. MMWD operates as a private mutual shareholder water company, which relies entirely upon groundwater for its water source and uses no imported water. The District encompasses a small portion of the Pauma Valley area of northern San Diego County. The primary function of the MMWD is to establish a service boundary and, therefore, it does not regulate any infrastructure.

### *Pauma Municipal Water District (PMWD)*

The PMWD's primary function is to provide water rights protection for landowners through coordinating joint legal and engineering efforts related to water and water supply problems. The function of the District is primarily to establish a service boundary. It does not regulate any infrastructure. The PMWD is totally dependent upon groundwater resources, and all of its water comes from private wells.

### *Questhaven Municipal Water District (QMWD)*

The QMWD provides water service to the Questhaven Retreat, located in the Elfin Forest area. QMWD serves approximately eight customers through 15 connections over a service area of 655 acres. One hundred percent of the water supply is provided from two local wells and the average daily consumption for this District is 6,000 gpd. QMWD operates two reservoirs (total capacity 170,000 gallons), three pump stations and approximately one mile of pipeline.

### *San Luis Rey Municipal Water District (SLRMWD)*

The SLRMWD service area covers approximately 3,000 acres. All of the local landowners operate their own private wells, with no imported water. SLRMWD staff estimates that landowners pump between 2,500 and 3,500 AF of water from the San Luis Rey River basin every year, mainly for agricultural and domestic purposes. The District largely exists to establish a boundary, with no general infrastructure, and primarily facilitates cooperation between landowners on matters of water rights.

### *Wynola Water District (WWD)*

The WWD was created to serve property owners within the subdivision known as Wynola Estates, located approximately three miles from Santa Ysabel and four miles from the Julian historic town site. WWD serves approximately 60 connections over a service area of 235 acres. One hundred percent of the water supply is provided from local wells. WWD operates 4.7 miles of pipelines, nine groundwater wells, and one reservoir (capacity 110,000 gallons). The WWD's average daily consumption is 30,000 gpd during summer. All water service from WWD is provided to residential land uses.

## Groundwater Dependent Users

The unincorporated portion of the County east of the SDCWA line (approximately 65 percent of the total area of the County) is totally dependent on groundwater resources, which provides the only source of water for over 41,000 residents. In addition to the above discussion regarding groundwater dependent water districts, groundwater users in the unincorporated County can be broken down into the following general categories: Residential; Commercial/ Industrial/Public Services; Agriculture; Small Water Systems; and Indian Reservations. General characteristics of these groundwater dependent users are discussed below.

### Residential

Groundwater dependent residences are either served by on-site private wells or by groundwater provided by a small water system such as a small water company or water district. It is conservatively estimated that an average residence has a consumptive use of approximately 0.5 AF of groundwater per year per single-family residence. Consumptive use is the amount of water lost from the groundwater resource due to human use, including evaporation and evapotranspiration losses associated with human use. Residential water uses include household consumption, irrigation of landscaping and/or agricultural crops, watering horses or other livestock, and pumping water to fill swimming pools or ponds.

### Commercial/Industrial/Public Services

Commercial and industrial uses are mostly located within small community town centers, but are also located sporadically throughout the backcountry. Commercial uses include store fronts and

retail strip malls, low-rise office buildings, libraries, post offices, and fire and police stations. Industrial uses include extractive industry (mining), light industrial, and warehousing/public storage. Groundwater dependent commercial/industrial/public services are either served by on-site private wells or by groundwater provided by a small water system. Estimated water demand generally ranges from none to approximately 1 AF per year per user.

### Agriculture

In 1998, the California Department of Water Resources (DWR) conducted a detailed survey of irrigated agricultural land in the County, which included review of aerial photography and extensive field visits to collect site-specific data. These data represent the most detailed information available at a countywide scale to estimate water demand from agricultural uses. General agricultural use categories include grazing and dry land farming, irrigation of pasture lands and alfalfa, orchards and vineyards (citrus, avocados, apples, grapes, etc.), and truck crops (seasonally planted crops such as lettuce or tomatoes). Some of the main water-intensive agricultural production areas are within Pala/Pauma (citrus, avocados, nursery crops, and cut flowers), Julian (apples), Jamul (citrus and avocados), east of Ramona (ranches/egg ranch), and Borrego Valley (citrus and palms). Water use for plants varies depending on weather factors including air temperature, relative humidity, wind speed, and solar radiation; soil factors such as soil texture, structure, density, and chemistry; and plant factors such as plant type, root depth, foliar density, height, and stage of growth. Agricultural users that are dependant on groundwater are either served by on-site private wells or by groundwater provided by a small water system such as a small water system or water district. Water demand can range from less than 1 AF of water per acre per year for dry land farmed areas to over 4 AF of water per acre per year for irrigated alfalfa and other water-intensive plant types.

### Small and State Water Systems

Small and community water systems with up to 199 service connections are regulated by the County of San Diego DEH, Land Use Program. As of 2008, there were 174 small water systems regulated and monitored by DEH to ensure compliance with the California Safe Drinking Water Act for supplying potable water. There are a number of water uses (with widely ranging water demand) associated with these water systems including campgrounds, resorts, retreat centers, schools, residences, restaurants, and parks. Water systems with 200 or more service connections are regulated by the California Department of Public Health Division of Drinking Water & Environmental Management (DDWEM). Within the San Diego region, DDWEM regulates three companies with 200 connections or more at the State level: the Pine Hills, Pine Valley, and Rancho-Pauma Mutual Water Companies. The majority of these are State regulated systems that purvey groundwater to residential users. Water supply regulations, such as the California Safe Drinking Water Act, are discussed below in 2.16.2, Regulatory Framework.

### Indian Reservations

County estimates of tribal groundwater use are based mainly on environmental documents which have been prepared by the tribes for casino projects, and reported average quantities of water that are used for given land uses that are known to exist on each reservation. There are a variety of water uses on Native American reservations including casinos, hotels, residences, restaurants, agricultural irrigation, and a golf course on the Barona Indian Reservation. Estimated water demand ranges from none on undeveloped lands (Capitan Grande, Cuyapaipe,

and Inaja Cosmit Indian Reservations) to over 500 AF per year on the Barona, Pala, and Rincon Indian Reservations. Barona Indian Reservation, with an estimated groundwater demand of greater than 500 AF per year, exceeds the sustainable yield of its groundwater basin. In recent years, the tribe has reportedly trucked in water to supplement its declining groundwater supply. Additionally, the San Pasqual tribe imports water from VCMWD to service their reservation and the Jamul Indian Village imports water from OWD to service the Jamul Casino. There is also an existing proposal to annex the Sycuan Casino into the OWD. All other Sycuan trust lands and lands owned by the Sycuan Band in fee are within the boundaries of either the PDMWD or the OWD.

**Borrego Valley Aquifer**

The Borrego Valley aquifer has a well documented groundwater overdraft condition, where year after year groundwater extraction exceeds the amount of groundwater that is recharged back into the aquifer. In the long-term, this situation is not sustainable. While the majority of residences and commercial entities in Borrego Valley receive their water from the BWD, there are private property owners within the BWD service area that utilize private wells. The vast majority of the water supplied to agricultural users within Borrego Valley comes from privately owned wells within the BWD service area. The BWD has water rights under some residential areas within its service area.

The BWD estimated the amount of water used within Borrego Valley from 1950 to 2007. The water demand is shown in Table 2.16-3, Historical Borrego Valley Water Demand. As shown in this table, total demand has fluctuated greatly over the past 50 years. While groundwater demand more than doubled from 1978 to 1999, it appears that overall water usage may have leveled off between 1999 and 2007. It is thought that the volume of groundwater in storage decreases with depth in Borrego Valley. Therefore, basin-wide rates of water level decline will increase with ongoing groundwater use, even without any change in the deficit between groundwater extraction and recharge. Groundwater management in Borrego Valley currently is through local water agencies (the BWD and the BSPCSD), and the County Groundwater Ordinance (as well as application of CEQA for land use discretionary applications). In the case of Borrego Valley, the basin has not been adjudicated. Therefore, individual well users are not limited in the amount of groundwater they can extract.

In 2002, the BWD adopted a Groundwater Management Plan (GMP) which allowed the District to become the groundwater management agency for the Borrego Valley aquifer as allowed under AB 3030. The adoption of the GMP thus placed BWD as the responsible agency for the stewardship of the aquifer and resolution of the overdraft condition. The GMP contains a summary of the Borrego overdraft condition, projections of future groundwater demand, and potential groundwater overdraft mitigation measures. Specifically, it set out goals including: 1) development of programs to assist in stabilizing the overdraft of the aquifer, 2) seek programs to provide a long-term supply of water for the valley, 3) continue to expand the knowledge of the water resources of the aquifer, 4) development and implementation of conservation programs, 5) work with State and County agencies to try to minimize any adverse impacts that new land uses would have on groundwater resources, 6) develop the ability to obtain funding for acquisition of actively irrigated agricultural land, and 7) evaluate the feasibility of acquiring land in adjacent basins and transporting water for use in Borrego Valley.

As part of the GMP, BWD became a groundwater replenishment district, which provides BWD with the following authority: 1) the ability to buy and sell water, 2) exchange water, 3) distribute

water in exchange for ceasing or reducing groundwater extraction, 4) recharge the basin, and 5) build necessary facilities to achieve groundwater replenishment.

The BWD is also in the process of preparing an IRP which is meant to provide an update on the BWD efforts to mitigate the overdraft condition of the Borrego Valley aquifer, and to present alternatives for the BWD to further evaluate as it strives to provide a sustainable water supply for its customers. As outlined in the BWD's draft IRP, a number of programs have been implemented to achieve the goals contained within the GMP including groundwater preservation fees, irrigated agricultural land purchases, conservation management program, water recycling, artificial recharge, and defining the reliability of the groundwater supply. In addition, there are several non-local water supply opportunities that the BWD is exploring, including: importation of groundwater from nearby basins, importation pipeline projects from non-local water agencies, such as Imperial Irrigation District or Coachella Valley Water District; and groundwater storage and recovery projects. A complete discussion of the BWD IRP programs can be found in Appendix A of the County Groundwater Study, included as Appendix F of this EIR.

### *2.16.1.2 Wastewater Collection, Transmission and Disposal*

Wastewater districts are generally responsible for providing collection, transmission, and disposal of sewage. The following section provides an overview of 25 wastewater districts that serve the unincorporated County, divided into three categories including: 1) the City of San Diego Metropolitan Wastewater Department (SDMWD); 2) wastewater districts served by SDMWD; and 3) wastewater districts unaffiliated with SDMWD. Table 2.16-4 identifies the existing (2004) housing and population served for wastewater districts served by SDMWD and wastewater districts unaffiliated with SDMWD. Generally, those districts located near the City of San Diego use the SDMWD system for treatment and effluent disposal. A number of agencies also use a combination of the SDMWD system and inland treatment and disposal systems. Those districts located inland provide sewage treatment and disposal through percolation of effluent into the soil and/or reuse through irrigation of vegetation or agricultural crops. Figure 2.16-2 identifies the wastewater districts and the wastewater facilities that serve unincorporated areas of San Diego County.

Wastewater districts can be classified as dependent sanitation districts or independent sanitation districts. A dependent sanitation district is formed by resolution of the San Diego County Board of Supervisors (BOS) while independent sanitation districts have their own independently elected Board of Directors. Unincorporated areas not serviced by wastewater districts typically utilize septic systems for wastewater disposal. The most common type of septic system found in San Diego County consists of a septic tank connected to leach lines. Approximately 80,000 septic systems exist throughout the unincorporated County.

**SDMWD Operations and Facilities**

SDMWD provides regional wastewater treatment and disposal services for the City of San Diego and 15 other cities and sanitation districts. SDMWD has a service area of 450 square miles, stretching from the City of Del Mar to the north, the communities of Alpine and Lakeside to the east, and the U.S./Mexico international border to the south. SDMWD serves a population of approximately two million people and processes and treats approximately 180 mgd of wastewater. Improvements are planned to increase the wastewater treatment capacity of SDMWD to nearly 340 mgd to serve an estimated population of 2.9 million in year 2050.

SDMWD owns and operates the following wastewater support facilities: nine major pump stations, 84 small pump stations, the Point Loma Wastewater Treatment Plant, the Point Loma Ocean Outfall, the SDMWD Biosolids Center, the North City Water Reclamation Plant, the South Bay Water Reclamation Plant, and the South Bay Ocean Outfall. The Point Loma Wastewater Treatment Plant has a current treatment capacity of 240 mgd. Approximately 180 mgd of effluent produced at this plant is discharged through the Point Loma Ocean Outfall into the Pacific Ocean. The SDMWD Biosolids Center processes organic material produced from material collected in the wastewater treatment process. The biosolids may be used to promote growth of agricultural crops, to fertilize gardens and parks, or to reclaim and replenish worn and nutrient-depleted land. The North City Water Reclamation Plant has a treatment capacity of 30 mgd and distributes reclaimed water throughout the northern region of San Diego via an extensive reclaimed water pipeline system. The South Bay Water Reclamation Plant has a capacity of 15 mgd. Effluent produced at this facility is distributed for beneficial reuse through recycled water distribution systems operated by the OWD and/or discharged through the South Bay Ocean Outfall into the Pacific Ocean.

**Wastewater Districts Served by SDMWD**

Within a wastewater district, three measurements of capacity definitions exist: 1) Pass-through Capacity (measured in mgd), 2) Allocated Equivalent Dwelling Units (measured in EDU), and 3) Available Capacity (measured in EDU). An EDU is defined as the sewer service equivalent to one single family unit.

a. "Pass-through Capacity" can be either of the following:

    1. Sewage treatment capacity rights purchased by each metropolitan sanitation district from SDMWD; and

    2. Sewage treatment capacity permitted by the RWQCB for sewage treatment plants that are owned and operated by the County of San Diego.

b. "Allocated Equivalent Dwelling Unit" refers to the aggregate number of EDUs issued by each sanitation district to the customers within that particular district.

c. "Available Capacity" refers to the difference between the "Pass-through Capacity" and the "Allocated Equivalent Dwelling Unit" measured in EDU.

### Alpine Sanitation District (ASD)

The ASD provides wastewater service to portions of the Alpine CPA. The ASD serves an area of 916 acres, and owns 21 miles of pipelines and two lift stations. The ASD conveys wastewater to SDMWD and has 0.72 mgd of SDMWD capacity rights with present discharges averaging 0.40 mgd. ASD has 2,560 allocated EDU within its service area, and 1,039 available EDUs. The County of San Diego Department of Public Works Wastewater Management Section (DPW WWM) is responsible for maintaining ASD wastewater service facilities.

### East Otay Mesa Sewer Maintenance District (EOMSMD)

The EOMSMD serves the East Otay Mesa Specific Plan Area located near SR-905 and the U.S./Mexico international border within the Otay CPA. This dependent District has 1.0 mgd of SDMWD treatment/disposal capacity rights. This capacity was purchased from Spring Valley

Sanitation District. This District currently has a service area of 2,619 acres. The District operates two miles of pipeline, and conveys wastewater to the SDMWD system. The District has a pass-through capacity rights of 1.0 mgd. This District has 398 allocated EDUs and 3,768 available EDUs. DPW WWM is responsible for maintaining this District.

**Lakeside Sanitation District (LSD)**

The LSD is a dependent sanitation district that operates a public sewer system in portions of the Lakeside CPA. The LSD has a service area of over 5,045 acres. The District operates 87 miles of pipelines and two lift stations. Wastewater is conveyed to the SDMWD system. This District has a pass-through capacity rights of 4.13 mgd and an average flow of 2.80 mgd. The LSD has 13,296 allocated EDUs and 2,194 available EDUs. DPW WWM is responsible for maintaining LSD facilities.

**Otay Water District (OWD)**

OWD is an independent water and sanitation district with its own independently elected Board of Directors. The OWD service area is 80,320 acres and facilities serve the water and/or sewer service needs of people living in the communities of southern El Cajon, La Mesa, Rancho San Diego, Jamul, Spring Valley, Bonita, eastern Chula Vista, East Lake, and Otay Mesa along U.S./Mexico international border. The OWD wastewater system operates 85 miles of sewer pipelines, five pump stations and conveys wastewater to SDMWD. OWD operates one wastewater treatment facility, the Ralph W. Chapman Water Reclamation Facility, which has a capacity of 1.3 mgd and an average flow of 0.8 mgd. Effluent from the reclaimed water facility is transported into the eastern Chula Vista area where it is used to irrigate a golf course, elementary and high school playing fields, public parks, roadway landscapes, and various other approved uses. Reclaimed water is also pumped to the Salt Creek Basin for irrigation and other non-potable uses. OWD has 6,053 allocated EDUs and 10,000 available EDUs. Information regarding OWD water service is discussed in Section 2.16.1.1, Potable Water Supply and Distribution.

**Padre Dam Municipal Water District (PDMWD)**

PDMWD is an independent district that provides both potable water and wastewater service. The PDMWD wastewater service area is limited to an area almost entirely within the City of Santee. However, there are some portions of the unincorporated County served by PDMWD, including the Pepper Drive-Bostonia area, and areas adjacent to the City of Santee. PDMWD provides wastewater service over a service area of 13,236 acres. PDMWD has 159 miles of sewer pipelines, four pump stations and conveys wastewater to SDMWD. PDWMD operates the Padre Dam Water Recycling Facility that provides advanced tertiary treatment and water reclamation. The facility capacity is 2.0 mgd with an average flow of 1.95 mgd. Wastewater collected at the treatment plant is reclaimed and discharged at Santee Lakes Regional Park and Campground. PDMWD has allocated 23,500 EDUs and has 1,728 EDUs available. Information regarding PDMWD water service is discussed in Section 2.16.1.1, Potable Water Supply and Distribution.

**Spring Valley Sanitation District (SVSD)**

SVSD is a dependent sanitation district that operates and maintains a public sewer system in portions of the Valle de Oro, Spring Valley, Sweetwater, and County Islands CPAs. SVSD has

a service area of over 12,869 acres. SVSD operates 245 miles of pipeline, four pump stations and conveys wastewater to the SDMWD system. SVSD currently has 10.35 mgd of SDMWD capacity rights and an average flow of 6.50 mgd. SVSD has 32,448 allocated EDUs and 10,362 EDUs available. DPW WWM is responsible for maintaining SVSD facilities.

### Winter Gardens Sewer Maintenance District (WGSMD)

WGSMD is a dependent sewer district serving the unincorporated neighborhood of Winter Gardens in the Lakeside CPA. WGSMD serves over 1,043 acres. The District operates 24 miles of pipeline and conveys wastewater to SDMWD and the City of El Cajon. The pass-though capacity is 1.3 mgd with an average flow of 0.88 mgd. All wastewater collected in the District is conveyed to the SDMWD for treatment and disposal, either through direct connections to the SDMWD system or via the City of El Cajon collection system. There are 3,731 EDUs allocated and 988 EDUs available in the WGSMD service area. DPW WWM is responsible for maintaining WGSMD facilities.

## Wastewater Districts Unaffiliated with SDMWD

### Borrego Springs Park Community Services District (BSPCSD)

BSPCSD is an independent sanitation district that provides water and sewer service to the Borrego Springs Country Club, located in the heart of the unincorporated community of Borrego Springs. BPSCSD is located entirely within the Borrego Springs Subregion and is completely surrounded by the separate independent district of BWD. BSPCSD provides sewer service over a service area of 1,200 acres. BSPCSD has a pass-through capacity of 0.1 mgd, an average flow of 0.03 mgd and conveys wastewater locally. BSPCSD has no additional EDUs allocated or available. BSPCSD owns and operates 10 miles of pipeline and one lift station. Information regarding BSPCSD water service is provided in Section 2.16.1.1, Potable Water Supply and Distribution.

### Borrego Water District (BWD)

BWD provides both water and wastewater service. BWD provides sewer service to the areas within the Borrego Country Town area, the Rams Hill Country Club, and La Casa del Zorro. BWD is an independent sanitation district with its own independently elected Board of Directors. BWD provides wastewater service over a 1,000 acre service area. BWD operates 19 miles of sewer pipelines, one lift station and conveys wastewater locally to the Rams Hill Water Reclamation Plant. This facility has a capacity of 0.25 mgd and an average flow of 0.03 mgd. Effluent produced at this facility is used for groundwater recharge. Prior to the availability of sewer, the community of Borrego Springs relied solely on individual septic systems. Today, the majority of residential development in Borrego Springs is still dependent upon individual septic systems. BWD has 1,000 allocated EDUs and 550 available EDUs. Information regarding BWD water service is provided in Section 2.16.1.1, Potable Water Supply and Distribution.

### Buena Sanitation District (BSD)

The BSD service area includes the neighborhood of Shadowridge, in addition to small portions of the North County Metro and Twin Oaks Subregions. BSD is an independent sanitation district with its own independently elected Board of Directors. BSD is administered by the City of Vista in the northwestern area of San Diego County. BSD owns approximately 100 miles of

pipelines. All sewage is treated at the Encina Wastewater Authority Plant in the City of Carlsbad. This facility has a treatment capacity of 3.25 mgd and an average flow of 2.8 mgd. The Shadowridge Reclamation Plant is also owned by BSD and has a capacity of 1.16 mgd, although it is currently not in use. BSD has 16,000 EDUs allocated and 2,000 EDUs available.

**Campo Water and Sewer Maintenance District (CWSMD)**

The CWSMD is located in the southeastern portion of the County of San Diego and provides sewer service to local residents. CWSMD is a dependent sewer district that provides wastewater service to private customers plus various County and other public facilities over an area of 418 acres. CWSMD operates five miles of pipelines and conveys wastewater locally to the Rancho Del Campo Wastewater Pollution Control Facility. This facility has a pass-through capacity of approximately 0.11 mgd with an average flow of 0.047 mgd. Effluent is discharged into percolation ponds and groundwater recharge. CWSMD has 253 allocated EDUs and 63 available EDUs. Per County Board of Supervisors (BOS) Policy, available capacity in the system is reserved for new connections in the Campo Hills subdivision and limited expansion of public services. The DPW WWM is responsible for maintaining CWSMD facilities.

**Cardiff Sanitary Division – City of Encinitas (Cardiff)**

The majority of the Cardiff service area is within incorporated lands. However, Cardiff continues to provide a handful of parcels in the San Dieguito Water District and Rancho Santa Fe neighborhood of the unincorporated County with reclaimed water service. Cardiff is an independent district with a service area of 4,202 acres. The district operates 77 miles of pipelines, four lift stations and conveys wastewater locally to the San Elijo Water Reclamation Facility. Cardiff has a pass-though capacity of 5.25 mgd and an average flow of 3.1 mgd. The San Elijo Water Reclamation Facility has a capacity of 2.48 mgd with an average flow of 1.0 mgd. Effluent from this facility is used for irrigation of landscaping for golf courses, Homeowners Associations, and roadways. Cardiff has allocated 7,900 EDUs and has 10,114 EDUs available.

**Fairbanks Ranch Community Services District (FRCSD)**

FRCSD provides sewer service to the unincorporated Fairbanks Ranch Specific Plan Area, a residential and commercial development to the southeast of the San Dieguito Town Center area. FRCSD is an independent district with a service area of 2,210 acres. The District operates 15 miles of pipelines, two lift stations and conveys wastewater locally to the Fairbanks Ranch Water Reclamation Facility. The pass-through capacity of the District is 0.28 mgd and the average flow is 0.23 mgd. FRCSD has been sized to serve the ultimate build-out of the area. FRCSD has 890 EDUs allocated and 917 EDUs available.

**Fallbrook Public Utility District (FPUD)**

FPUD provides both water and wastewater service. FPUD's current wastewater service boundary is limited to the Fallbrook CPA. FPUD is an independent sanitation district that provides sewer service over a service area of 4,200 acres. FPUD operates over 75 miles of sewer pipelines, six pump stations and conveys wastewater locally to the FPUD Water Treatment Plant. Effluent from this plant is discharged into a land outfall pipeline that joins with the City of Oceanside's outfall line for release into the Pacific Ocean. FPUD pass-though capacity is 2.7 mgd with an average flow of 1.9 mgd. The wastewater treatment plant has a

capacity of 3.1 mgd and an average flow of 1.9 mgd. Effluent is used for landscape irrigation, freeway landscape irrigation, nurseries, golf courses, and treatment plant reuse. FPUD has 8,400 EDUs allocated and 2,600 EDUs available. Information regarding FPUD water service is provided in Section 2.16.1.1, Potable Water Supply and Distribution.

**Julian Sanitation District (JSD)**

The JSD is a dependent district that provides public sewer service in portions of the Julian CPA. The JSD sewer system primarily serves the Julian central business district area. JSD provides wastewater service over a service area of 119 acres. JSD operates approximately three miles of pipelines, one lift station and the Julian Wastewater Pollution Control Facility, located approximately one-mile west of the Julian Town Center area. This facility has treatment capacity rights of 0.04 mgd. Effluent is used for irrigation. The treatment plant operates at maximum capacity, and therefore has an established moratorium. New sewer permits are only issued under very strict criteria, such as failing septic systems or previously purchased sewer commitments. Annexations are not allowed, except for failing septic systems. JSD has 316 EDUs allocated and 7 available EDUs. DPW WWM is responsible for maintaining JSD facilities.

**Harmony Grove Sewer Maintenance District (HGSMD)**

HGSMD will provide sewer service for the planned Harmony Grove Village development project located in the unincorporated community of Harmony Grove, west of the City of Escondido in the North County Metro Subregion. On February 7, 2007 the Harmony Grove Village development project received discretionary development entitlements, including approval of a Master Reclamation Plan for the District that includes planned collection, reclamation, and disposal facilities. Harmony Grove Village encompasses approximately 468 acres, with planned residential, commercial, institutional, and park uses.

The project developer will construct the wastewater collection, treatment, and disposal facilities. When the Harmony Grove Village project is fully occupied, the wastewater treatment facility, to be operated by the HGSMD, will receive an average flow of 0.20 mgd, and a projected peak flow of 0.71 mgd. Once the treatment facility is constructed, inspected, and subsequently accepted by the County, responsibility for future operations and ongoing maintenance will transfer to the HGSMD.

**Olivenhain Municipal Water District (OMWD)**

OMWD's is an independent sanitation district with boundaries that extend over the neighborhoods of Whispering Palms, Fairbanks Ranch, 4-S Ranch, Cardiff, Olivenhain, Carlsbad, La Costa, and Elfin Forest. OWMD provides water and wastewater service to over 30,720 acres of land. The District has a total of 375 miles of pipeline, 50,000 feet of which are dedicated to recycled water transportation. Wastewater from OWMD is conveyed to the District's 4S Wastewater Treatment Plant, which has a 2.0 mgd pass-through capacity and a 600,000 gpd facility capacity. Effluent from this facility is used for non-domestic purposes, such as green belt, agricultural, and landscape irrigation. Additional information regarding OMWD water service is provided in Section 2.16.1.1, Potable Water Supply and Distribution.

### Pauma Valley Community Services District (PVCSD)

PVCSD is an independent district that encompasses approximately 1,500-acres northeast of Valley Center and west of Palomar Mountain. PVCSD provides sewer service and street lighting to a small residential development and commercial area in the unincorporated community of Pauma Valley. Approximately half of the PVCSD service area is undeveloped, with the exception of areas engaged in agricultural activities. PVCSD owns one 115,000 gpd sewage treatment facility that collects, treats, and disposes sewage. The plant provides secondary treatment and the treated effluent is then percolated into the ground.

### Pine Valley Sanitation District (PVSD)

PVSD is a dependent sanitation district that operates and maintains sewer service in a small portion of Pine Valley. PVSD serves 28 acres and operates less than one mile of pipeline. Wastewater is conveyed locally to the Pine Valley Wastewater Pollution Control Facility. This facility has treatment capacity rights of 40,000 gpd and an average flow of 105,000 gpd. Effluent is used for groundwater recharge. All of PVSD capacity is either committed or allocated. DPW WWM is responsible for maintaining PVSD facilities.

### Rainbow Municipal Water District (RMWD)

RMWD is an independent local governmental agency that provides water and sewer services to an unincorporated area of northern inland San Diego County. RMWD provides water and wastewater service to its 49,800-acre service area, which includes the unincorporated communities of Rainbow, Bonsall, and a portion of Fallbrook. Sewer service is primarily concentrated along the eastern side of SR-76 and northeast of I-15. RMWD has its own sewage treatment facility with a capacity of 1.0 mgd. Information regarding RWMD water service is provided in Section 2.16.1.1, Potable Water Supply and Distribution.

### Ramona Municipal Water District (Ramona MWD)

The Ramona MWD is authorized to operate two sewer service areas: 1) San Diego Country Estates, which utilizes the San Vicente Wastewater Treatment Plant; and 2) the Ramona Town Center area, which utilizes the Santa Maria Wastewater Treatment Plant. Ramona MWD provides wastewater service over an area of 9,708 acres. It operates 78 miles of sewer pipelines, five lift stations and conveys wastewater locally to the Santa Maria and San Vicente Wastewater Treatment Facilities. The rated plant capacity for Santa Maria is 1.00 mgd and for San Vicente is 0.8 mgd. The annual moving average flow rate is 0.81 mgd for Santa Maria and 0.61 for San Vicente. However, the Santa Maria Wastewater Treatment Plant exceeded its rated capacity on several occasions during the last ten years and in 2005 experienced 30-day moving average flow of 1.14 mgd. These facilities also have a water reclamation capacity of 0.35 mgd and an average flow of reclaimed water at 0.33 mgd. Effluent is used for golf course irrigation. Information regarding Ramona MWD water service is discussed in Section 2.16.1.1, Potable Water Supply and Distribution.

### Rancho Santa Fe Community Services District (RSFCSD)

RSFCSD is an independent district with a service area of 11,680 acres. RSFCSD operates 43.78 miles of pipeline, 12 pump stations and conveys wastewater to the San Elijo Wastewater Pollution Control Facility. In addition, RSFCSD operates the Rancho Santa Fe Water

Reclamation Facility with a pass-through capacity of 0.45 mgd and an average flow of 0.32 mgd. RSFCSD also operates the Santa Fe Valley Water Reclamation Facility which has a pass-through capacity of 0.49 mgd and an average flow of 0.05 mgd. These facilities provide secondary and tertiary treatment of wastewater. Effluent is used for spray irrigation. RSFCSD has 1,966 EDUs allocated and 3,830 EDUs available.

**Vallecitos Water District (VWD)**

VWD is an independent district that provides water and wastewater service to the City of San Marcos, portions of the Cities of Vista, Escondido, and Carlsbad, as well as portions of the North County Metro, Twin Oaks, Bonsall, and San Dieguito CPAs. VWD provides wastewater service to approximately 18,700 accounts. VWD operates 235 miles of sewer pipelines, three pump stations and conveys wastewater locally. There are two VWD treatment facilities utilized by VWD: Meadowlark Reclamation Facility and Encina Wastewater Authority Facility. The Meadowlark Reclamation Facility has a pass-through capacity of 2.25 mgd and an average flow of 1.95 mgd. The Encina Facility provides advanced secondary treatment and has a pass through capacity of 7.54 mgd. Effluent is sold to the Carlsbad Municipal Water District and used for irrigation. VWD has allocated 3,713 EDUs and has 11,447 EDUs available. Section 2.16.1.1, Potable Water Supply and Distribution, provides additional information on VWD water service.

**Valley Center Municipal Water District (VCMWD)**

The majority of VCMWD service area is served by individual septic systems. VCMWD is an independent district that provides wastewater service to a small portion of its 62,100 acres service area. VCMWD also provides water service, as discussed in Section 2.16.1.1, Potable Water Supply and Distribution. The VCMWD service area includes the following: 1) the I-15 corridor area, including Hidden Meadows, the Lawrence Welk Specific Plan Area and Castle Creek Country Club, which is served by the Lower Moosa Canyon Water Reclamation Facilities (WRF); and 2)the Woods Valley Ranch subdivision which is served by the Woods Valley Ranch WRF. VCMWD operates these two water reclamation facilities. The Lower Moosa Facility has a capacity of 0.5 mgd and an average flow of 0.35 mgd. The Woods Valley Ranch Facility has a capacity of 70,000 gpd and an average flow of 45,000 gpd.

**Whispering Palms Community Services District (WPCSD)**

WPCSD is an independent district that provides services to the unincorporated area southwest of Fairbanks Ranch and southeast of Rancho Santa Fe in the San Dieguito CPA. WPCSD has a service area of 2,140 acres. WPCSD operates 17.1 miles of pipeline, two pump stations and conveys wastewater locally to the Whispering Palms Wastewater Reclamation Facility. The pass-though capacity of the reclamation facility is 0.40 mgd with an average flow of 0.26 mgd. This facility is sized to meet the ultimate demand of the service area. WPCSD has 1,370 EDUs allocated and 1,667 EDUs available.

### *2.16.1.3 Solid Waste Disposal*

Prior to 1989, solid waste planning and management was the prime responsibility of individual jurisdictions. However, the California State Legislature changed this approach when they enacted the Integrated Waste Management Act (IWMA) of 1989. The IWMA required

jurisdictions to reduce their dependence on landfills for disposal of solid waste, and to ensure an effective and coordinated approach to safe management of all solid waste generated within the State. In October 1997, the County sold its active landfills and other solid waste collection assets to a private company, Allied Waste Industries, Inc. Currently, solid waste generated by residents and businesses is disposed of locally at the landfill of the hauling contractor's choice. The following section discusses the seven active landfills, nine transfer stations, construction demolition and inert processing facilities, ten biomass processing facilities, and various recycling programs that currently serve the unincorporated area's solid waste disposal service needs. Figure 2.7-1 in Section 2.7, Hazards and Hazardous Materials, shows the location of active landfills within the unincorporated County. Closed landfills and land uses that surround active landfills are discussed in Section 2.7, Hazards and Hazardous Materials.

## Landfills

Solid waste management has been recognized as an important regional issue in San Diego County because of limited landfill capacity, increased urban encroachment, applicable environmental regulations, increased cost of developing and managing active and closed waste management facilities, and increased environmental and social concerns affecting potential facility expansions and replacement sites. Due to factors such as population growth, economics and development, there has been a consistent increase in annual solid waste disposal tonnages. Historically, solid waste disposed in San Diego County landfills grew steadily from less than 400,000 tons in 1978 to over 4.1 million tons in 2005. From 1995 to 2005, solid waste disposal for the unincorporated County increased by 89 percent. Figure 2.16-3 shows the annual solid waste disposal increase from 1995-2004. Of the 4.1 million tons of solid waste disposed of in County landfills in 2005, approximately 98 percent of solid waste was from jurisdictions located in the County. The remaining tonnage was from Indian Nations (0.35 percent), Mexico (0.20 percent), other California jurisdictions (0.32 percent), and military waste (1.0 percent). Waste composition varies from year to year and is affected by a number of factors including recycling programs, the economy, and landfill bans.

Until 1997, the solid waste management system in San Diego County was serviced by eight landfill facilities. In March 1997, the San Marcos landfill facility was closed by court order. Currently, there are seven active landfills in the San Diego region that serve residents, businesses, and military operations in both incorporated and unincorporated areas. These landfills include Borrego, Miramar, Otay, Ramona, Sycamore, Las Pulgas, and San Onofre. The landfills currently operating in the County for public use are either privately owned and operated, or are operated by the City of San Diego. The Sycamore, Otay, Ramona, and Borrego landfills are owned and operated by a private company, Allied Waste Industries. Las Pulgas and San Onofre landfills are owned and operated by the U.S. Marine Corps (USMC), and the Miramar Landfill is owned and operated by the City of San Diego on leased U.S. Department of the Navy land. The USMC-operated landfills are not available for public disposal. At this time, there are two partially permitted new landfills located in the County, or contained therein. The first is located at Gregory Canyon in northern San Diego County. If/when it is constructed, the Gregory Canyon Landfill would provide an additional capacity of 600,000 to 1 million tons per year for a total of 33.4-million tons with a life expectancy of approximately 30 years. The Campo planned landfill is located on the Campo Indian Reservation, geographically surrounded by the County, and if/when it is constructed would provide an additional capacity of approximately 930,000 tons per year with 28 million tons of total capacity over a life expectancy of approximately 30 years. Table 2.16-5 identifies the existing capacity of the San Diego County landfills, excluding military landfills, and the Gregory

Canyon and Campo landfills. Gregory Canyon and Campo landfills are included in this discussion due to their locations within the County and stages in the permitting process.

Siting of a new solid waste disposal facility, or expansion of an existing solid waste facility, is often a controversial and lengthy process. All potential disposal facilities in the County must be included in a Countywide Siting Element Amendment to the San Diego County Integrated Waste Management Plan (IWMP). However, discussion of proposed sites in the Siting Element is only one step in the review and approval process. In addition, each proposed facility in the County is considered through the local jurisdictional land use permitting processes. The region may need to export approximately 7.6 percent of its waste in 2020 to meet the region's disposal needs. Continued availability of out of county disposal sites is not known. The Siting Element analyses determined that if the county would recycle at a rate of 75 percent, compared to the present 50 percent, there would be no need for additional landfills in the county (DPW 2005).

**Transfer Stations**

Solid waste not dumped directly in a landfill is deposited temporarily in several privately operated transfer stations located throughout the County. Seven transfer stations in the County assist with solid waste disposal services. Table 2.16-6 identifies these stations, their operators and permitted annual throughput. The region's transfer stations play a vital role in accommodating throughput to landfills, serving as collection and separation points of solid waste and recyclables. Transfer stations help reduce traffic congestion and provide the flexibility to haul waste to distant landfills or processing plants outside of the San Diego region. The network currently handles approximately 60 percent of the region's solid waste and services. The network has a permitted throughput of approximately three million tons per year, and currently utilizes about two million tons per year, or 67 percent of network capacity

**Construction Demolition and Inert Processing Facilities**

Construction, Demolition and Inert (CDI) debris waste not dumped directly in a landfill is deposited temporary for processing at privately operated construction demolition processing facilities. Two CDI processing facilities in the County assist with solid waste diversion from the landfill. Table 2.16-7 identifies these facilities, their operators and permitted annual throughput.

As of September 2008, there were two additional CDI facilities in the permitting process.

**Organic Material Processing Facilities**

Ten biomass processing facilities serve San Diego County that chip, grind and compost organic materials. Approximately 508,000 tons of organic materials are processed for compost chips and mulch annually. An estimated 450 tons per day are prepared for transport to several biomass-powered electrical generating plants in Imperial and Riverside Counties, which accrue to about 117,000 tons per year. Two additional biomass plants are planned for the County of San Diego; one in the City of Vista and the other in the Otay CPA. Organic materials used to cover unincorporated County landfills weighed 63,414 tons in 2007. As of January 2009, one new composting facility had applied for operating permits, which would produce about 37,000 additional tons of compost annually.

**County Recycling Programs**

In 1989, the IWMA required cities and counties to reduce their waste disposal levels by 25 percent by the year 1995 and 50 percent by the year 2000. The Solid Waste Planning and Recycling Program implemented by County DPW serves residents and businesses in the unincorporated communities of San Diego County and works to achieve IWMA goals through continual improvement of waste diversion programs. In 2005, the unincorporated San Diego communities attained a 50 percent diversion rate. Since 1991, the County has had a mandatory Recycling Ordinance (Ordinance 8866) for solid waste generators and waste haulers, and in 2007 a mandatory Construction and Demolition Ordinance (9840) was adopted for projects above 40,000 square feet in area.

The IWMA also requires the preparation of a County IWMP. The BOS adopted the County of San Diego IWMP on September 17, 1996. The comprehensive Plan discusses the need for a reduction in solid waste and includes a Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, Countywide Siting Element, and Countywide Summary Plan. Currently, the County implements extensive programs for source reduction, recycling, and best-use practices for a variety of materials. Current programs include support of rural recycling programs, curbside and drop-off recycling for motor oil and filters, and public-private partnerships for development of additional construction/demolition and organics processing capacities. Over 60 privately owned non-disposal facilities operate in the County, not including the City of San Diego. These include recycling and reuse companies, transfer stations, organic processors, and construction/demolition facilities. This network of non-disposal facilities is integral to the collection and processing of recyclable materials and for helping the County meet its diversion goals.

### *2.16.1.4 Energy*

Provision of adequate power and energy is a significant component of County services. The following section describes the current power and energy resources serving the unincorporated County, which include electricity, natural gas, nuclear energy, and alternative energy sources. Because energy supply and demand does not differentiate between jurisdictional boundaries, it is difficult to discuss energy in terms of the unincorporated area alone. Therefore, unless specified, data presented in this section represents current energy conditions for the entire San Diego County region.

**Electricity**

The San Diego region has natural gas-fired and renewable capacity to generate over 3,000 megawatt (MW) of electricity, or about 70 percent of the region's summer peak demand. This capacity consists of gas-fired steam and combined cycle plants, small and medium-sized peaking plants, and on-site generators (excluding backup generation). The San Diego region also has distributed generation sites with a combined capacity of 156 MW, or about four percent of current peak demand. There are 3,153 grid-connected photovoltaic installations, which provide 18.5 MW in total. The Cabrillo Power Plant in Carlsbad has a capacity of 960 MW, and the South Bay Power Plant in Chula Vista has a capacity of 703 MW. These units are quickly nearing technological and economical obsolescence. Fossil fuel-fired steam units such as these are designed to operate for 40 to 50 years, while the design-life of the combustion turbines in natural gas power plants is approximately 35 years. Although many units outlive

their design life, forced outage occurrences increase with time, leading to a higher likelihood that they will not be available when needed. State law requires utilities like San Diego Gas and Electric (SDG&E) to have 20 percent of the electricity it delivers come from renewable energy sources by 2017. The CPUC has accelerated that requirement to 2010. Table 2.16-8, identifies existing power plants located in San Diego County based on information provided by SDG&E.

### Electricity Transmission

One essential component of the San Diego region's energy supply is high-voltage electric transmission connection to other energy markets. The current transmission system provides a number of functions including: 1) support for wholesale market transactions that help to stabilize electric prices; 2) improved system reliability and stability; 3) creation of opportunities to site new electric generation stations; 4) provision of additional voltage support. Currently, there are only two points of interconnection between the SDG&E service area and the external electric grid. These include the San Onofre Nuclear Generating Station (SONGS) switchyard in the northwestern area of the County and the Miguel Substation in the southern area of the County. Historically, the San Diego region has relied upon imports of electric power to meet over half of its supply needs. Transmission upgrades made in 2000 and 2001 raised the SDG&E simultaneous import capacity to 2,850 MW and the non-simultaneous import capacity to 2,500 MW.

### Electricity Demand

Historical electricity consumption has increased in every decade of the 20th century, although at a decelerating rate. In recent decades, average annual growth was five percent during the 1970's, 3.9 percent during the 1980's, and 2.5 percent in the 1990's. During the energy crisis years of 2001 and 2002, electricity usage fell below the pre-crisis level. However, demand has rebounded since 2002 with growth averaging 2.7 percent per year between 2002 and 2005. In 2005, the San Diego region consumed 19,214 gigawatt-hours (GWh) of electricity, while peak utility-based demand was 4,058 MW. Both of these measures were down slightly from the previous year due to milder weather in 2005. Electricity demand is expected to increase by nearly 24 percent between 2005 and 2016 at an average growth rate of 1.9 percent per year.

### Electricity Projections

During the short term, the region is looking to minimize energy demand by aggressively pursuing energy efficiency, conservation and demand response programs. From 2006 to 2010, SDG&E has a goal to reduce peak demand by a total of 268 MW. With respect to major power plants, South Bay Power Plant has a contract for operation that will expire on December 31, 2009. Due to its age, the long-term operational future of the South Bay Plant is undetermined. Both the South Bay and Encina plants are older facilities with high operation and maintenance costs. In addition, the Otay Mesa Energy Project is a modern, high efficiency combined-cycle power plant currently under development near the U.S./Mexico international border. The plant is expected to have a summer capacity of 562 MW. Electricity peak demand in the long term is expected to nearly double, increasing by more than 4,000 MW by 2030. This demand is expected to be met by a mix of energy technologies that include distributed generation and central plants.

## Natural Gas

The San Diego region imports all of its natural gas from other parts of the U.S. and from outside the country. The San Diego region does not have facilities to store natural gas, which is primarily used in electrical generation and heating. However, SDG&E and other end-users have access to storage services from the Southern California Gas Company (SoCalGas), subject to tariffs approved by the CPUC. SDG&E, an investor-owned utility, is the local distribution company for natural gas in San Diego, with a gas customer base of over 800,000 natural gas meters. SDG&E, and its customers, obtain natural gas transportation service from SoCalGas on a wholesale customer basis. Although SDG&E is not the only purchaser of natural gas for smaller consumers, it provides natural gas transportation service to all gas customers, pursuant to CPUC-approved tariffs.

### Capacity and Transmission

Natural gas supply capacity refers to the amount of gas that can be transported through existing pipelines. The current SDG&E gas system is capable of delivering an average of 635 million cubic feet/day (MMcfd) in the summer and 655 MMcfd the winter. These two operating capacities include a reserve margin of 45 MMcfd to account for various potential scenarios that could affect delivery. Two main pipelines carry natural gas into the San Diego region from the San Diego/Riverside County line at the Rainbow meter station. The larger 30-inch diameter pipeline carries gas to the Tecolote Regulator Station in the Linda Vista area of the City of San Diego. The smaller 16-inch diameter line carries gas south to the Mission City gate station. An additional 12-inch diameter SoCalGas pipeline supplies natural gas to customers along the coast from San Clemente in Orange County to La Jolla in the City of San Diego.

### Natural Gas Demand

Currently, California and the western U.S. are experiencing a significant increase in the demand for natural gas as a result of plans to build several thousand megawatts of new natural gas-fired electric generating capacity facilities. The Palomar Energy Center in Escondido recently opened in 2006 and is a 550 MW generating plant that provides enough energy for approximately 350,000 homes. It is a combined-cycle, natural gas-fueled plant, which produces 45 percent more energy using the same amount of natural gas fuel as older plants. There are also two new major generating plants planned for San Diego County, including the Otay Mesa Project owned by CalPine, and the Community Power Project in San Diego. The longer-term growth in demand for natural gas for electrical generation will depend on the construction and operation of the plants listed above, as well as the disposition of the existing electrical generation facilities in the area. Estimated average annual growth for natural gas demand for San Diego is expected to be about 1.5 percent per year from 2005. Demand of natural gas is expected to grow from 1,423 million therms (MMtherms) in 2002 to 1,642 MMtherms in 2030.

### Natural Gas Projections

Currently, there is sufficient natural gas pipeline infrastructure to meet expected gas demand in the County. However, significant increases in gas demand would likely necessitate increases in pipeline system capacities. The long-term outlook for natural gas-fired electrical generation is highly uncertain. A number of projects have been proposed that are still in the development stage, and the long-term operation of some of the older generation facilities remains uncertain. In addition, a number of liquefied natural gas (Lng) developers are proposing to develop

projects that would entail delivering some of that supply into the SDG&E natural gas transportation system.

## Nuclear Power

Nuclear power comes from the nucleus of an atom, which holds a large amount of potential energy. This energy, when let out slowly can be harnessed to generate electricity. A nuclear power plant uses uranium as a fuel to feed this process. Uranium is an element that is mined from many places around the world. It is then processed into tiny pellets that are loaded into very long rods that are put into the power plant's reactor to produce energy.

The only nuclear power plant located within San Diego County is the San Onofre Nuclear Power Plant, operated by the Southern California Edison Company. The three-unit power plant occupies an 84 acre site located approximately four miles north of the City of Oceanside, south of San Clemente in Orange County. Unit 1 was shut down in 1992 after 25 years of operation because the costs to upgrade the unit made its continued operation economically infeasible. In 2007, Unit 2 generated approximately 8.30-billion kilowatt hours (kWh) of energy with a capacity factor of 88.5 percent. In the same year, Unit 3 generated 8.91-billion kWh, averaging 94.1 percent of its capacity.

## Alternative Energy

### Biomass/Bio-gas Energy

Biomass/bio-gas can be used as fuel and is often equated with garbage, and can include dead trees, tree branches, yard clippings, leftover crops, wood chips, bark, sawdust, tires, livestock manure, and gas produced by the decomposition of waste dumped at landfills. Burning biomass/bio-gas is a reasonable supplement to fossil fuels since California alone produces more than 60 million bone-dry tons each year. If all of it were utilized, California could generate close to 2,000 MW of electricity, which is enough energy for about two million homes. In the San Diego region, landfill gas currently produces approximately 13.8 MW.

### Hydroelectric Power

Hydroelectric power uses the kinetic energy of moving water to make electricity. The water from a river or reservoir can be sent through a hydroelectric power plant or powerhouse. This method is one of the largest producers of renewable energy in the world. In California, about 15 percent of all electricity comes from hydroelectric means. In the San Diego region, hydroelectric power currently produces approximately 6.5 MW. Currently, California law limits the types of hydroelectric power that can be considered renewable energy due to growing concerns about the effects on fish and other wildlife. Hydroelectric facilities must be smaller than 30 MW and typically consist of hydrogenerators placed in water aqueducts. The SDCWA recently opened a hydroelectric facility in the Mira Mesa area of the City of San Diego called the Rancho Penasquitos Pressure Control Facility in Mira Mesa. This facility has a 4.5 MW electrical generator.

### Solar Cells

Sunlight can also be changed directly into electricity using solar cells, also known as photovoltaic cells. Photovoltaic cells can be found on many small appliances, such as

calculators; however, they were first developed for use on space satellites. Electrical energy from solar cells can be used directly in a home or business for lights and appliances. In the San Diego region, photovoltaic cells currently produce approximately 18.5 MW of electricity per day.

**Wind Energy**

The kinetic energy of the wind can be changed into other forms of energy, namely mechanical or electrical energy. Blowing wind spins the blades on a wind turbine, which in turn rotates the turning shaft, which turns the generator to make electricity. This method can be used on both a large and small scale and one turbine could produce enough electricity to power either a school or a home. In addition, there are wind "farms" where turbines are grouped together in the windiest areas. About 11 percent of the world's wind-generated electricity is found in California, with three of the most prominently windy areas being: 1) Altamont Pass, east of San Francisco, 2) San Gorgonio Pass, near Palm Springs, and 3) Tehachapi, south of Bakersfield. Together, these three places make enough electricity to supply an entire city the size of San Francisco. Currently, there is one wind energy facility within the San Diego region, the 50 MW Kumeyaay Wind Project on the Campo Indian Reservation, which began producing power in 2005.

## 2.16.2 Regulatory Framework

### *2.16.2.1 Federal*

**Safe Drinking Water Act (SDWA)**

Passed in 1974 and amended in 1986 and 1996, the SDWA gives the EPA the authority to set drinking water standards. Drinking water standards apply to public water systems, which provide water for human consumption through at least 15 service connections, or regularly serve at least 25 individuals. There are two categories of drinking water standards, the National Primary Drinking Water Regulations (NPDWR) and the National Secondary Drinking Water Regulations (NSDWR). The NPDWR are legally enforceable standards that apply to public water systems. NPDWR standards protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water.

**Federal Water Pollution Control Act, 1972**

In 1972, the Federal Water Pollution Control Act Amendments were enacted to address water pollution problems. After an additional amendment in 1977, this law was dubbed the Clean Water Act (CWA). Thereafter, it allowed for the regulation of discharges of pollutants into the waters of the U.S. by the EPA. Under the CWA, the EPA can implement pollution control programs and set water quality standards. Additionally, the CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions.

### *2.16.2.2 State*

**California Drinking Water Standards**

State drinking water standards are based on federal standards and are listed in Title 22 of the California Code of Regulations. The California Department of Health Services administers the State drinking water standards.

**California Water Code**

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the SWRCB shall consider and act upon all applications for permits to appropriate waters. Division 6 of the Water Code controls conservation, development and utilization of the State water resources. Division 7 addresses water quality protection and management.

**Senate Bill (SB) 610**

On January 1, 2002, SB 610 took effect. SB 610, which has been codified in the Water Code beginning with Section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project. SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects.

**Senate Bill (SB) 221**

Enacted in 2001, SB 221, which has been codified in the Water Code beginning with Section 10910, requires that the legislative body of a city or county which is empowered to approve, disapprove or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term “sufficient water supply” is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses. SB 221 requirements do not apply to the general plans of cities or counties, but rather to specific development projects.

**California Code of Regulations Energy Efficiency Standards (Title 24, Part 6)**

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California’s energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

**California Integrated Waste Management Act (IWMA) (AB 939)**

The IWMA was enacted by the California Legislature in 1989 with the goal of reducing dependence on landfills for the disposal of solid waste, and to ensure an effective and coordinated system for the safe management of all solid waste generated within the State. The IWMA established a hierarchy of preferred waste management practices which include: 1) source reduction; 2) reuse of resources, 3) recycling and composting; and 4) environmentally safe disposal by transformation or landfill. It addresses all aspects related to solid waste regulation including the details regarding the lead enforcement agency's requirements and responsibilities, the permit process including inspections and denials of permits, enforcement, and site clean-up and maintenance. It requires the County to prepare a Countywide IWMP that is reviewed at least once every five years to assure that waste management practices remain consistent with the practices defined in the Public Resources Code. Each City and the County is responsible to maintain its Source Reduction and Recycling, Household Hazardous Waste and Non-Disposal Facility Elements.

**Porter-Cologne Water Quality Control Act**

The 1969 Porter-Cologne Water Quality Control Act, codified in the California Water Code, authorizes the SWRCB to implement programs to control polluted discharges into State waters. This law essentially implements the requirements of the CWA. Pursuant to this law, the local RWQCB is required to establish the wastewater concentrations of a number of specific hazardous substances in treated wastewater discharge.

**Groundwater Management Act (AB 3030)**

Passed in 1992, AB 3030 (California Water Code Sections 10750-10756) provides a systematic procedure for an existing local agency to develop a groundwater management plan. This section of the code provides such an agency with the powers of a water replenishment district to raise revenue to pay for facilities to manage the groundwater basin (extraction, recharge, conveyance, quality).

**State Water Resources Control Board (SWRCB)**

In California, the SWRCB is responsible for ensuring the highest reasonable quality of waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB's current challenge is exacerbated by California's rapid population growth, and the continuing struggle over precious water flows. It faces tough new demands which include fixing ailing sewer systems; building new wastewater treatment plants; and tackling the cleanup of underground water sources impacted by the very technology and industry that has catapulted California into global prominence. Additionally, the SWRCB will continue to focus on its most vexing problem of nonpoint source pollution, or polluted runoff, which is difficult to categorize, isolate and resolve.

**Urban Water Management Planning Act (California Water Code Sections 10610-10656)**

In 1983, the California State Legislature enacted the Urban Water Management Planning Act (California Water Code Sections 10610 through 10656) which requires every urban water supplier that provides water to 3,000 or more customers, or provides over 3,000 AF of water annually, to make every effort to ensure the appropriate level of reliability in its water service to

meet the needs of its customers during normal, dry, and multiple dry years. The Act describes the contents of UWMPs as well as how urban water suppliers should adopt and implement the plans. It was the Legislature's intent to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied.

**Water Conservation Projects Act**

The State of California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (California Water Code Sections 11950 through 11954), which encourages local agencies and private enterprise to implement potential water conservation and reclamation projects.

### *2.16.2.3 Local*

**County of San Diego Groundwater Ordinance, County of San Diego Code of Regulatory Ordinances Section 9826 (N.S.)**

The County currently manages anticipated future groundwater demand through the County Groundwater Ordinance. This Ordinance does not limit the number of wells or the amount of groundwater extraction from existing landowners. However, the Ordinance does identify specific measures to mitigate potential groundwater impacts of projects requiring specified discretionary permits. Existing land uses are not subject to the Ordinance unless a listed discretionary permit is required. Additionally, Major Use Permits or Major Use Permit Modifications which involve construction of agricultural and ranch support facilities or those involving new or expanded agricultural land uses are among the exemptions from the Ordinance. However, the agricultural exemption does not supersede or limit the application of any law or regulation, including CEQA. The Groundwater Ordinance separates the County into three areas of regulations: Borrego Valley, Groundwater Impacted Basins, and All Other Projects.

**County of San Diego Water Services Ordinance, County of San Diego Code of Regulatory Ordinances Section 9678 (N.S.)**

This ordinance establishes the terms and conditions under which the County will provide water service to customers using County-owned facilities.

**San Diego County Department of Environmental Health (DEH)**

The County DEH is the primary agency charged with regulating the design, construction, and maintenance of septic tanks, leach lines, seepage pits, and alternative on-site wastewater treatment systems (OWTS) throughout the County through a delegation from the Regional Water Quality Control Board. The County DEH regulates these facilities through a Septic Tank Permit Process. Any development proposing to use an OWTS must first demonstrate that the site can meet minimum design criteria with respect to soil type and groundwater separation. The size of the OWTS is a function of the soil permeability and peak daily sewage flow based on percolation testing and occupancy. As a result of the passage of AB 885, the County DEH is working with the SWRCB to develop Statewide performance and design standards for conventional and alternative OWTS. These standards are projected to be available for adoption in March of 2012. Additionally, the County DEH is the primary agency charged with conducting

inspections and providing technical assistance to the small drinking water systems in San Diego County. The purpose of the DEH Small Drinking Water System Program purpose is to protect public health by preventing waterborne disease and indentifying risks of bacterial, chemical and/or radiological contamination. DEH assists small drinking water systems to be in compliance with the California Safe Drinking Water Act.

**County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO), County of San Diego Code of Regulatory Ordinances, Section 67.817**

The RWQCB, San Diego Region Order No. R9-2007-0001, issued January 24, 2007, mandates that the County of San Diego, as one of the Copermittees, submit new and updated Urban Runoff Management Plans (URMPs) to the RWQCB on January 24, 2008, and implements these programs starting January 25, 2008. Requirements in the WPO are intended to: 1) prohibit polluted non-stormwater discharges to the stormwater conveyance system and receiving waters; 2) establish requirements to prevent and reduce pollution to water resources; 3) establish requirements for development project site design to reduce stormwater pollution and erosion; 4) establish requirements for the management of stormwater flows from development projects to prevent erosion and to protect and enhance existing water-dependent habitats; 5) establish standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sties; 6) establish notice procedures and standards for adjusting stormwater and non-stormwater management requirements, where necessary.

**County of San Diego Uniform Sewer Ordinance (USO)**

The County sanitation and sewer maintenance districts operate under the County USO. The USO sets forth rules and regulations for operation and maintenance of sewage collection and treatment systems. Classes of sewer service are categorized by land use type. Provisions for annexation are addressed, along with procedures for obtaining new or modified sewer service. Wastewater Discharge Permits are issued to each customer, with approximately 90 percent of permits issued to residential uses and 10 percent issued to commercial uses. Violations of the USO are subject to misdemeanor charges.

**San Diego County Health and Sanitation Ordinance. County of San Diego Code of Regulatory Ordinances. Title 6. Division 8. Chapter 1. Sections 68.101-68.123**

Title 6 of the County of San Diego Code of Regulatory Ordinances (Code) specifies conditions and procedures for connection and use of sewage facilities by sanitation district customers. The Code incorporated many, but not all, provisions of the USO. It appears that whenever changes to the USO occur, they may not always be incorporated into the Code in a consistent or timely manner.

**County of San Diego Fee Ordinances**

Each sanitation district has a fee structure that is adopted by separate ordinance. The ordinance includes annual sewer service fees, connection capacity fees (i.e., system buy-in charge) and annexation fees. Annual sewer service fees are collected on the County tax rolls, which are paid either once or twice per year. Annexation and capacity fees are collected at the time an application is submitted or when a Wastewater Discharged Permit is issued.

**San Diego County Board of Supervisors (BOS) Policy F-16, Cleaning and Repair of Sewer Laterals**

BOS Policy F-16 defines the policy and outlines the procedure for cleaning and repair of sewer laterals. This policy will be reviewed for continuance by 12-31-09.

**San Diego County BOS Policy I-25, Establishment of Assessment Districts to Provide for Public Improvements and Facilities for Sanitary Sewers**

BOS Policy I-25 establishes conditions for the use of Assessment Act proceedings for the construction of public improvements and facilities for sanitary sewers in unincorporated areas of the County. This policy will be reviewed for continuance by 12-31-09.

**San Diego County BOS Policy I-36, Sewer Extensions and Connections in Areas Not Annexed to a Sanitation District**

BOS Policy I-36 prohibits extension of sewer lines to areas not located within a sanitation district unless annexation has occurred. Where a public health problem has been determined, application to LAFCO for annexation must occur. A temporary connection agreement (subject to LAFCO approval) can then be issued prior to completion of annexation proceedings.

**San Diego County BOS Policy I-48, Sewer Extensions in Areas Not Annexed to a Sanitation District**

BOS Policy I-48 requires all sewer extensions within sanitation districts to be accomplished by private contract rather than by County forces. This is due to limited County staffing and availability of private contractors. The policy will be reviewed for continuance by 12-31-10.

**San Diego County BOS Policy I-51, Connection to Districts Interceptor Sewers**

BOS Policy I-51 is intended to prevent connections to sewer interceptors constructed through undeveloped land which is not planned for urban services. The policy will be reviewed for continuance by 12-31-09.

**San Diego County BOS Policy I-78, Small Wastewater Treatment Facilities**

BOS Policy I-78 allows for construction of small wastewater treatment facilities under certain conditions. This policy generally applies to certain unincorporated areas where public sewer facilities are unavailable. The policy will be reviewed for continuance by 12-31-10.

**San Diego County BOS Policy I-84, Project Facility Availability and Commitment for Public Sewer, Water, School and Fire Services**

BOS Policy I-84 requires the applicable agency to issue an availability letter for prospective discretionary projects as a condition of County approval. This is to ensure that adequate facilities and capacity will be available at the time it is needed. The policy will be reviewed for continuance by 12-31-10.

**San Diego County BOS Policy I-99, Expenditures and Use of Revenue for Replacement and Expansion of Liquid Waste Facilities**

BOS Policy I-99 defines the financial planning and budgeting requirements to provide funding for replacement and improvement of sanitary sewerage systems and facilities within the various County Dependent Sanitation and Sewer Maintenance Districts. The policy was to be reviewed for continuance in 2003 but, to date, this review has not occurred.

**San Diego County BOS Policy I-106, Establishment of Priorities for Limited Sewer Capacity in the Mission Gorge Trunk Sewer Line**

BOS Policy I-106 was originally established in 1986 at a time when the City of San Diego expressed concerns that the Mission Gorge Trunk Sewer, which conveys wastewater generated in the Lakeside and Alpine Sanitation Districts, was experiencing surcharges during periods of peak sewage flow, particularly during wet weather conditions. Subsequent to adoption of the policy, the City of San Diego constructed additional sewer facilities that relieved capacity constraints in the Mission Gorge Trunk Sewer, effectively eliminating the need for Policy I-106. This policy is set to expire on 12-31-09 and will no longer be applicable.

**San Diego County BOS Policy I-107, Policy on Long-Term Availability of Sewer Services to Certain Portions of East County**

BOS Policy I-107 has been adopted as a mitigating measure for the Rancho San Diego Interceptor in order to use this interceptor to assure long-term availability of sewer services to appropriately urbanizing areas and to prevent the untimely introduction of sewer service. This policy is designed to regulate connections to the Rancho San Diego Sewer Interceptor, which is jointly shared by the Spring Valley Sanitation District and the OWD. This policy will be reviewed for continuance by 12-31-09.

**San Diego County BOS Policy I-109, Subcommittee and Plans to Guide Development of the Otay Ranch Project**

BOS Policy I-109 provides direction to County decision-makers and staff, owners of the subject land, and other public agencies concerned with development of the Otay Ranch project, for purposes of implementing Volume 2 of the Otay Subregional Plan.

**San Diego County BOS Policy I-113, Establishment of Priorities for Limited Sewer Capacity in the Julian Sanitation District**

BOS Policy I-113 defines priorities and criteria for determining future sewer service in the Julian Sanitation District which is served by the Julian Water Pollution Control Facility. This policy will be reviewed for continuance by 12-31-09.

**San Diego County BOS Policy I-135, Allocation of Excess Capacity in the Campo Water and Sewer Service Areas**

BOS Policy I-135 provides guidelines for the allocation of limited capacity in the existing CWSMD. The policy establishes criteria for the issuance of water use permits, sewer capacity commitments and wastewater discharge permits for proposed development within the Campo service area. This policy will be reviewed for continuance by 12-31-12.

**Non-Exclusive Solid Waste Management Agreement**

The Non-Exclusive Solid Waste Management Agreement was created to allow the County of San Diego to participate in the solid waste collection market to ensure orderly operation and to minimize the potential for adverse effects on the local environment. The agreement is based on the declaration of the California IWMA that it is in the interest of the public to require local agencies to make adequate provisions for solid waste handling. In addition, the County BOS has determined that the agreement shall be awarded to qualified companies for the collection and subsequent transfer, transportation, recycling, processing and disposal of solid waste. The Solid Waste Agreement allows the County of San Diego to regulate waste collection in a market-driven business.

**County of San Diego Integrated Waste Management Plan (IWMP)**

The BOS adopted the County of San Diego IWMP on September 17, 1996. The Plan discusses the need for a reduction in solid waste and includes a Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, Countywide Siting Element, and the Countywide Summary Plan. The Countywide Siting Element of the 1996 IWMP was updated in 2005, as required by the IWMA. It provides a description of the facilities and strategies which will provide adequate capacity for the disposal of solid waste within the County over the next 15 years, including alternatives such as additional waste diversion programs and waste export. The Countywide Siting Element presents a strategy to assist local governments and private industry in planning for integrated waste management and the siting of solid waste disposal facilities. The goals and policies listed in the Countywide Siting Element are intended to assist all jurisdictions to plan and implement a solid waste management program.

## 2.16.3 Analysis of Project Effects and Determination of Significance

### *2.16.3.1 Issue 1: Wastewater Treatment Requirements*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA guidelines, the proposed County General Plan Update would have a significant impact if it would exceed the wastewater treatment requirements of the RWQCB.

**Impact Analysis**

The unincorporated County of San Diego is under the control of the RWQCB and the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB). RWQCB regulates wastewater discharge in the majority of the eastern, central and western unincorporated County, while CRBRWQCB regulates wastewater discharge in a smaller portion of the eastern unincorporated County.

Implementation of the proposed General Plan Update would direct the majority of the anticipated population growth within the unincorporated County into the western portion of the

County, which contains areas that already have existing infrastructure and services, including wastewater treatment facilities. The demand for wastewater treatment capacity would potentially increase upon implementation of the proposed General Plan Update land uses from new developments that require wastewater service, such as residential, commercial and industrial. An increase in wastewater demand would require the need for new or expanded facilities to be constructed in order to meet the demand of the proposed project. In order to be permitted, new facilities would be required to meet the wastewater treatment requirements for the RWQCB and CRBRWQCB. However, if the demand for wastewater treatment services increased at a rate disproportionate to capabilities of wastewater treatment facilities, a violation in wastewater treatment standards would occur. For example, the FPUD (Fallbrook) treatment plant is currently operating at maximum capacity. The General Plan Update proposes village residential, semi-rural residential, and village core mixed use land uses within the FPUD service area. Development of these land uses would require additional wastewater service. Because the FPUD treatment plant is currently operating at capacity, an increase in wastewater demand would require the expansion of the existing facility or the construction of a new wastewater treatment facility. A violation in wastewater treatment standards would occur if the proposed land uses are developed and connected to the FPUD system without expansion of the FPUD treatment plant. Therefore, this would be considered a potentially significant impact.

The existing service capacities and service area for many wastewater districts are based on the existing General Plan land use designations. Implementation of the proposed General Plan Update would increase land use densities within wastewater district service areas in a manner that would not be currently planned for, particularly in the western portion of the unincorporated County where the majority of population would be distributed under implementation of the General Plan Update. Development of the land uses proposed under the General Plan Update would exceed wastewater district capacities if proper planning does not occur for the updated land use plan in a timely manner.

Additionally, approximately 80,000 septic systems exist throughout the unincorporated County. The majority of these systems are located in the eastern portion of the unincorporated County, in areas under jurisdiction of the RWQCB or CRBRWQCB. Implementation of the General Plan Update would direct the majority of the anticipated population growth into the western portion of the County, generally within the SDCWA service boundary and where wastewater treatment facilities exist. However, some development utilizing septic systems would occur in the eastern portion of the County and some areas in the western portion of the County where wastewater treatment facilities are not available, such as portions of Fallbrook, Bonsall, and Valley Center. Any septic system located in the unincorporated County has the potential to impair water quality. For example, the General Plan Update Groundwater Study (DPLU 2009f) found that under soil conditions conducive for successful leach fields for septic tanks, 90 to 99 percent of leachate from leach fields reached the water table. This finding indicates that if a septic system contains harmful constituents, there is a high probability that these contaminants will reach the groundwater table and impair water quality. To address this issue, the RWQCB has issued a waiver of waste discharge requirements for septic systems and delegated oversight to DEH, who is responsible for ensuring that unincorporated County septic systems are properly sited and installed. Under a waiver of waste discharge requirements, leachate from a properly sited and installed septic system may still reach the groundwater table, but this would not be considered a violation of water quality standards if the septic system is meeting the requirements of the waiver. In this event, a violation of water quality standards would not occur but the septic system would still have the potential to impair water quality.

### Federal, State and Local Regulations and Existing Regulatory Ordinances

Numerous federal, State and local regulations exist that would reduce the potential for the proposed project to exceed the wastewater treatment requirements of the RWQCB or CRBRWQCB. These include the: Federal Water Pollution Control Act, which regulates discharges of pollutants into waters of the U.S.; California Water Code, which controls almost all considerations of water and its use; Porter-Cologne Water Quality Control Act, which controls polluted discharges into State waters; Water Conservation Projects Act, which encourages local agencies to implement potential water conservation and reclamation projects; County DEH, which sets standards to regulate septic tank discharges; San Diego Code of Regulatory Ordinances Section 68.101, which specifies conditions and procedures for sewage facilities; and County Fee Ordinances, which require annual sewer service, connection and annexation fees.

The County also requires that development projects proposing to use sewer include in their applications the necessary availability and commitment letters demonstrating sufficient wastewater treatment capacity and access to available sewer facilities. This requirement is further enforced with BOS Policies I-25, I-36, I-48, and I-84.

### Proposed General Plan Update Goals and Policies

The General Plan Update contains several policies in within the Land Use Element that related to wastewater treatment requirements. These goals and supporting polices are intended to assure that wastewater treatment requirements are not violated. Goal LU-9 requires well defined, planned, and developed community cores, such as villages and town centers that contribute to a community's identity and character. Policy LU-9.4 supports this goal by prioritizing infrastructure improvements and the provision of public facilities in community cores. Goal LU-12 establishes sustainable infrastructure, public facilities and essential services that meet community needs and are provided concurrent with growth and development. Policies LU-12.1 and LU-12.2 support this goal by requiring concurrency of infrastructure and services with development and maintenance of adequate services. Goal LU-14 promotes adequate wastewater facilities that address potential hazards to human health and the environment. Policies LU-14.1, LU-14.2, LU-14.3 and LU-14.4 support this goal by requiring adequate wastewater facility plans, disposal, treatment facilities, and sewer facilities.

### Summary

The development of future land uses as designated in the proposed General Plan Update would have the potential to result in the increased demand for wastewater treatment services at a rate disproportionate to treatment facility capabilities. If new or expanded facilities are not provided to serve new development, a violation in wastewater treatment standards would occur. While the existing County policies and regulations and proposed General Plan Update goals and policies are intended to preclude violations in wastewater treatment requirements, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact related to wastewater treatment requirements and specific implementation programs are identified as mitigation.

### *2.16.3.2 Issue 2: New Water and Wastewater Treatment Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA guidelines, the proposed County General Plan Update would have a significant impact if it would require or result in new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.

**Impact Analysis**

The development of future land uses, as designated in the proposed General Plan Update, would result in the construction of residential, commercial and industrial structures, which would result in an increased need for water and wastewater treatment services. In order to meet the increased demand, new and expanded water and wastewater treatment facilities would need to be constructed. Additionally, new land uses proposed in the backcountry areas would not currently be served by water or wastewater systems and would require the provision of new water and wastewater treatment facilities.

Tables 2.16-1, 2.16-2 and 2.16-4 identify water and wastewater districts that service the unincorporated County in terms of their existing (year 2004) housing and population statistics compared to projected housing and population statistics under implementation of the General Plan Update. Generally, districts that provide both water and wastewater service to the unincorporated County would experience the greatest population and housing growth under implementation of the General Plan Update. As shown in these tables, the water/wastewater districts that would experience the greatest growth under implementation of the General Plan Update include BWD (964 percent increase in both housing units and population); BSPCSD (600 percent increase in housing units and 602 percent increase in population); CWSMD (622 percent increase in housing and 627 percent increase in population); and VCMWD (96 percent increase in housing units and 98 percent increase in population). Some groundwater dependent water districts would experience substantial growth under implementation of the proposed General Plan Update, including: CCWD (400 percent increase in housing units and 433 percent increase in population); DCSD (330 percent increase in housing units and 333 percent increase in population); and CWD (160 percent increase in housing units and 175 percent increase in population). An increase in population and housing would increase the potential need for new water and wastewater treatment facilities to be constructed.

There are multiple water and wastewater facilities currently planned that would accommodate the projected growth under the General Plan Update. The SLRMWD is proposing a new connection to SDCWA 2$^{nd}$ Aqueduct. RMWD has a moratorium for new septic systems because of high groundwater, and would need a wastewater treatment plant for future development. FPUD is currently at capacity and needs to be expanded or requires the construction of a new wastewater treatment plant. Any annexation of territory for PVSD would require improvements to the existing plant to allow operation at maximum permitted capacity or upgrade of plant if flows exceed permit limits. LSD recently annexed territory from PDMWD that requires extension or expansion of LSD sewer facilities, including sewer mains and pump stations. Additionally, proposed development in Jacumba Valley would require a new wastewater treatment plant.

The construction of new or expanded water and/or wastewater facilities to serve new development occurring in designated areas under the proposed General Plan Update would have the potential to cause secondary environmental effects to air quality, cultural resources, noise, hydrology or other environmental issues. The complexity of the environmental impacts is often a function of how extensive or complex the development is. For example, water and wastewater treatment plants require the construction of buildings and structures in addition to transmission lines. Additionally, the construction of new septic systems to service development would require the installation of septic tanks and leach lines. The greater the dispersal of development, the greater potential the project has to have associated environmental impacts because more infrastructure would be required. One of the guiding principles of the proposed General Plan Update is to promote sustainability by locating new development near existing infrastructure; thereby reducing the potential for environmental impacts associated with extensive infrastructure improvements over long tracts of land.

Any future water and/or wastewater treatment projects in the County would be required to conduct environmental review pursuant to CEQA prior to approval. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance, consistent with CEQA. However, some environmental impacts associated with the construction of water or wastewater treatment plants would be significant and require mitigation, such as hydrology, biology, and air quality. It should be noted that the development of water or wastewater treatment facilities is usually undertaken directly by a water or sewer district and is outside the jurisdiction of the County.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Numerous federal, State and local regulations exist which regulate environmental impacts related to water and wastewater treatment facilities. These include SDWA, which sets national drinking water standards for public water systems; Federal Water Pollution Control Act, which regulates discharges of pollutants into waters of the U.S.; California Water Code, which controls almost all considerations of water and its use; California Drinking Water Standards, which establishes state drinking water standards; Porter-Cologne Water Quality Control Act, which controls polluted discharges into State waters; Water Conservation Projects Act, which encourages local agencies to implement potential water conservation and reclamation projects; USO, which regulates sewage collection and treatment systems; County Code Section 68.101, which specifies conditions and procedures for sewage facilities; and County Fee Ordinances, which require annual sewer service, connection and annexation fees.

New water and wastewater facilities proposed under the County's jurisdictional authority are required to obtain a Major Use Permit. The Major Use Permit process is subject to CEQA review as well as certain land use compatibility findings. For those facilities proposed by other public agencies in the project area, CEQA and/or NEPA review is also typically required.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains several policies in the Land Use Element and Housing Element related to the development of new water or wastewater facilities. Within the Land Use Element, Goal LU-1 requires a land use plan that sustains the intent and integrity of the

Community Development Model and the boundaries between regional categories. Policy LU-1.2 supports this goal by prohibiting leapfrog development that would require the construction of new infrastructure facilities. Goal LU-4 requires coordination with the plans and activities of other agencies that relate to issues such as land use, safety, community character, transportation, energy, and other infrastructure in the unincorporated County and the natural resources of the region. Policy LU-4.3 supports this goal by requiring consideration of the relationship of plans in adjoining jurisdictions. Considering and forming agreements with infrastructure utilities in surrounding jurisdictions would reduce environmental impacts by maximizing existing infrastructure and reducing the need for additional facilities construction.

In the Housing Element, Goal H-1 encourages a housing stock with a variety of housing and tenancy types at a range of prices, which meets the varied needs of existing and future unincorporated County residents. Policy H-1.3 supports this goal by encouraging housing near public infrastructure which would reduce the need for new infrastructure, the construction of which could have significant environmental effects.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would have the potential to require or result in the construction of new water or wastewater treatment facilities or an expansion of existing facilities, the construction of which would have the potential to cause significant environmental effects in areas such as hydrology, biology, and air quality. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce environmental impacts associated with the construction of new water or wastewater treatment facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact associated with new water and wastewater treatment facilities and specific implementation programs are identified as mitigation.

### *2.16.3.3 Issue 3: Sufficient Stormwater Drainage Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA guidelines, the proposed County General Plan Update would have a significant impact if it would result in new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

**Impact Analysis**

The development of new residential, commercial and industrial land uses consistent with the land use designations proposed in the General Plan Update would increase the amount of impermeable surfaces within the unincorporated County from the development of rooftops, parking lots, roads and driveways; thereby increasing the stormwater runoff within the unincorporated County. An increase in the amount of impermeable surfaces throughout the County would potentially result in an excess of runoff that would exceed the capacity of existing stormwater drainage systems, requiring the construction of new or expanded facilities. A vast amount of the unincorporated area is rural land that does not support or require stormwater

drainage facilities. In contrast, most urban areas within the incorporated areas of San Diego County have a range of stormwater drainage facilities, managed by the County. Development projects in the County must comply with the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance in order to receive project approval. This regulation requires development projects to demonstrate that they have provided stormwater facilities sized appropriately to accommodate runoff flows.

Pursuant to CEQA, projects in the County involving the construction of stormwater drainage facilities would be required to conduct an environmental review prior to approval. CEQA requires proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Numerous federal, State and local regulations exist that regulate environmental impacts related to stormwater drainage facilities and stormwater discharges. These include the following: Federal Water Pollution Control Act, which regulates discharges of pollutants into waters of the U.S.; California Water Code, which controls almost all considerations of water and its use; Porter-Cologne Water Quality Control Act, which controls polluted discharges into State waters, and the County WPO, which protects water resources and improves water quality. In some instances, adherence to these regulations would result in the need for new or expanded stormwater drainage facilities the construction of which would have the potential to adversely affect the environment. However, in most cases application of stormwater management requirements include the provision that the least environmentally damaging designs and methods be used. In addition, these regulations often result in alternative ways of managing stormwater runoff other than constructing new conveyance systems or drainage facilities, such as reducing impervious surfaces in site design, incorporating Low Impact Development (LID) techniques, and employing low-impact best management practices (BMPs).

For new development that would result in new stormwater drainage facilities or expansion of existing facilities, the County evaluates all potentially significant impacts that could result from the associated infrastructure. Such improvements must comply with the County Grading Ordinance as well as other applicable regulations protecting environmental resources, such as Section 2940 et seq. of the Zoning Ordinance, Noise Ordinance, RPO, Biological Mitigation Ordinance (BMO), Habitat Loss Permit (HLP) Ordinance, and relevant BOS Policies. In addition, environmental impacts shall be minimized and mitigated to the extent feasible for all projects pursuant to CEQA.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains several goals and policies within the Land Use Element and Conservation Element to promote sufficient stormwater drainage facilities throughout the unincorporated County. In the Land Use Element, Goal LU-6 requires that the built environmental be in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. Policies LU-6.5 and LU-6.9 support this goal by ensuring sustainable stormwater management and development conformance with topography. In the Conservation and Open Space Element, Goal COS-4 requires a balanced

and regionally integrated water management approach to achieve the long-term viability of San Diego County's water quality and supply. Policy COS-4.3 supports this goal by requiring that stormwater filtration development utilize natural drainage patterns in order to reduce environmental impacts from the alteration of existing drainage patterns or construction of new drainage facilities.

**Summary**

The development of future residential, commercial and industrial land uses as designated in the proposed General Plan Update would have the potential to increase the amount of impermeable surfaces within the unincorporated County, thereby increasing stormwater runoff. The increase in stormwater runoff would require the construction or expansion of new stormwater facilities to handle the increased runoff flows, which would have the potential to result in significant environmental impacts. While the existing County policies and regulations and proposed General Plan Update goals and policies are intended to provide sufficient stormwater drainage facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact to stormwater drainage facilities and specific implementation programs are identified as mitigation. Stormwater drainage facilities are further discussed in Section 2.8, Hydrology and Water Quality.

### *2.16.3.4 Issue 4: Adequate Water Supplies*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would: 1) result in a demand for water that exceeds existing entitlements and resources, or necessitates new or expanded entitlements; or 2) substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits are granted).

**Impact Analysis**

Within the unincorporated County, potable water is primarily obtained by imported water supplies from water districts or pumping water from local groundwater basins. The majority of the western portion of the unincorporated County is served by water districts that import water supplies from SDCWA, through MWD, while the remainder of the County is provided with water service through groundwater dependant water districts/companies or private and public wells. The following section examines the potential for adequate water supplies to occur under implementation of the proposed General Plan Update in terms of SDCWA member districts and groundwater dependent water districts. Each discussion includes an evaluation of the potential growth within each district's service area, in addition to describing applicable water agency planning documents, reasonably foreseeable water supply projects planned for the future, and potential environmental impacts associated with developing additional water supply projects.

## SDCWA Member Districts

### *Future Water Demand*

Table 2.16-1 identifies the existing conditions (year 2004) for housing units and population within each SDCWA member district's service area, in addition to the projected increase in housing units and population within these service areas under implementation of the proposed General Plan Update. This table provides a conservative estimate of the potential housing and population increases within each SDCWA member district service area by evaluating the expected increase in population and housing units that would occur upon complete build-out of the proposed General Plan Update. As shown in Table 2.16-1, all 15 SDCWA member districts that serve the unincorporated County would experience growth in both population and number of housing units with implementation of the General Plan Update. SDCWA member districts that would experience the greatest percentage of growth under implementation of the proposed project include YMWD (159 percent increase in both housing and population); VCMWD (96 percent increase in housing and 98 percent increase in population); RDDMWD (91 percent increase in housing and 92 percent increase in population); and VID (89 percent increase in housing and 92 percent increase in population). Any increase in population and housing units within a SDCWA member district's service area would result in an increase in the demand for potable water service.

SDCWA member districts that would serve the largest population and number of housing units under the proposed project include OWD (79,539 housing units and 236,309 persons); PDMWD (74,422 housing units and 211,348 persons); HWD (31,915 housing units and 94,295 persons); and Ramona MWD (27,273 housing units and 83,719 persons). It should be noted that although these SDCWA member districts would serve the greatest population and housing units under implementation of the General Plan Update, they generally would not experience substantial growth when compared to existing conditions (year 2004).

As population and housing units increase, so does the demand for potable water service. Therefore, regional water supply planning is needed to ensure that available water supplies meet increasing demand as the region grows. In 1992, SDCWA and SANDAG entered into an agreement to ensure ongoing communication on future growth and water supply planning. This agreement called for SDCWA to use SANDAG's most recent growth forecast for planning purposes and for water supply to be a component of the region's overall growth management strategy. SANDAG's growth forecast is based on the land use policies of the incorporated cities and the County. Because SDCWA does not have land use approval authority, it can neither directly cause nor prevent growth. How and where development occurs in the SDCWA service area is decided by the 18 incorporated cities and the County, which have local land use approval authority. SDCWA's job is to make sure water is available when it is needed.

SANDAG updates its growth forecast approximately every five years. Water districts update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their UWMPs. Because the proposed General Plan Update has undergone multiple revisions over the past years, the planning documents upon which various water districts rely to secure a sustainable long term supply of potable water to the unincorporated County, including UWMPs, IRPs and the Regional Water Facilities Master Plan, do not currently account for the growth proposed under the General Plan Update. Therefore, the proposed General Plan Update would result in increases in population and housing in areas that may not have been accounted for in the most current

water planning documents. If the proposed General Plan Update is adopted, SANDAG and SDCWA will incorporate the new population and housing data for the County when they review the Regional Water Facilities Master Plan in conjunction with the SDCWA UWMP. Development and construction of the facilities outlined in the Regional Water Facilities Master Plan will be accelerated or delayed, as appropriate, based on the updated SANDAG information (SDCWA 2003).

***Urban Water Management Plans***

In the 2005 UWMPs, MWD, SDCWA and all 15 SDCWA member agencies that serve the unincorporated County determined that adequate water supplies would be available to serve existing service areas under normal water year, single dry water year and multiple dry water year conditions through the year 2030, if Water Authority and member agency supplies are developed as planned, along with the implementation of MWD's IRP. Single dry year, normal year and multiple dry year UWMP supply and demand assessments are included in Appendix J of this EIR. These projections are intended to describe the reliability of the water supply and vulnerability of the water supply to seasonal or climatic shortages, to the extent practical.

In addition to SANDAG's population and demographic forecasts, described above, SDCWA considers historic weather patterns, anticipated and planned water projects in the region, and other demographic information supplied by SANDAG to forecast regional water demand and the availability of imported water supplies. It is important to note that the supply and demand projections contained within 2005 UWMPs were based on SANDAG Series 10 population projections, which were based on the Draft Land Use Map Alternative for the proposed General Plan Update rather than the proposed project (Referral Map).

While the Draft Land Use Map population projection includes the majority of the growth planned for in the General Plan Update, a variety of circumstances have changed since the 2005 UWMPs were prepared. For example, much of California faces an unprecedented combination of water supply challenges including regulatory restrictions to protect the Delta smelt (fish) in the Sacramento-San Joaquin Delta which has dramatically reduced water deliveries from Northern California, and may remain in effect for years. Three consecutive years (2006-2008) of drought have also constrained potable water supplies and substantially depleted storage in reservoirs throughout the entire SWP area. Many of the State's major reservoirs have been drawn down to very low water levels as a result. The 2005 UWMPs' supply and demand projections accounted for multiple dry water year drought conditions, but did not account for the current regulatory restrictions on pumping from the State Water Project. In April 2009, the SDCWA, in response to reduced water supplies caused by regulatory restrictions on water deliveries from Northern California, lingering drought, and cutbacks from MWD, approved cutting water deliveries to its member water agencies by 8 percent (effective July 1, 2009). To help achieve the required reduction in regional water use, SDCWA also immediately declared a Level 2 "Drought Alert" condition. That action enables the SDCWA's 24 member agencies to adopt mandatory conservation measures for residences and businesses, such as use restrictions or tiered water rates that charge more for excessive water use.

Due to the above mentioned reasons, it is unlikely that the supply and demand projections provided in the MWD, SDCWA and SDCWA member district's 2005 UWMPs accurately portray 2009 water conditions in the unincorporated County. Implementation of the proposed General Plan Update would increase both population and housing units within each County water district's service area in a manner that is not currently planned for in the most recent (2005)

water planning documents. Since UWMPs are updated every five years, the 2010 UWMPs prepared by MWD, SDCWA and the SDCWA member districts will be required to consider the abovementioned conditions, in addition to the revised population and housing data proposed by the General Plan Update (if adopted), when updating their supply and demand projections.

***Future Water Supply***

Generally, the planning documents for MWD, SDCWA and the SDCWA member districts account for future water supply projects that would provide adequate water supply through the year 2030. This is also the horizon year for the proposed General Plan Update. However, unexpected factors, such as record drought conditions and court-issued cutbacks to imported water increase the uncertainty that the water supply projects included in the water planning documents will be sufficient to meet future demand. Additional complicating factors, such as difficulty obtaining permits for desalination projects, unexpected water quality contamination of supply sources, erratic weather patterns associated with climate change, and competing demands for water supply could further impair the development of new water supply projects. The factors mentioned above would increase the potential for future water supply to be unable to meet future water demand.

Reasonably foreseeable water supply projects for MWD and SDCWA, which together provide the majority of the water supply for the SDCWA member districts, are summarized below and discussed above in Section 2.16.1.1. Although water district planning documents, such as the IRP, Regional Water Facilities Master Plan, and UWMPs, indicate that obtaining additional water supplies is feasible, it is possible that unforeseen barriers exist or will exist in the future. Therefore, due to uncertainties surrounding the implementation of future water supply projects, water supplies may be inadequate to serve the build out of the proposed General Plan Update.

MWD's long-term strategy for a sustainable water supply is outlined in its IRP, which is currently being updated. As discussed in Section 2.16.1.1, the IRP identifies a mix of resources (imported and local) that would provide 100 percent reliability for full-service demands. This mix of resources includes implementing conservation measures, local supplies, SWP supplies, Colorado River supplies, groundwater banking, and water transfers through the year 2030. In addition, MWD is active in increasing local supplies through sponsoring recycling, conservation, groundwater recovery, and desalination efforts. However, as discussed above, unexpected climatic and legal factors and the regulatory constraints (i.e., cutbacks) on pumping of MWD water supplies from the State Water Project have increased the uncertainty that projects included in MWD planning documents will be able to adequately serve future demand.

SDCWA has determined that the best way to ensure a reliable water supply for the future is to diversify its water supply portfolio. Diversification includes water that originates locally, such as recycled water and desalinated seawater. SDCWA selected seawater desalination as the preferred method for providing a new, safe and reliable water supply for the region. However, the development of desalination facilities has been delayed due to issues associated with the permitting process. In addition to pursuing the construction of desalination facilities, the SDCWA has reduced the severity of cutbacks from MWD by developing additional water supplies as part of its long-term water supply diversification strategy. SDCWA has a water transfer agreement with the Imperial Irrigation District (beginning in 1998) that will last up to 75 years, as well as a 110-year agreement (beginning in 2003) that brings water conserved by canal-lining projects in the Imperial Valley to San Diego County. SDCWA has also been working with its member agencies to develop greater local water supplies, from sources such as

groundwater and recycled water. In April 2009, SDCWA also decided to use 16,000 AF of water from short-term "dry year" transfers to minimize the required regional water cutback for 2009. An integral assumption in the SDCWA's water demand projections is that water conservation will increase significantly, more than tripling by 2020. Increased water recycling and increased use of groundwater also play important roles in making sure SDCWA is able to provide enough water in the future (SDCWA 2009). Although SDCWA is exploring multiple venues for providing adequate water supply in the future, unexpected factors including difficulty permitting desalination plants and record drought conditions, increase the uncertainty that projected supplies identified in SDCWA planning documents will meet future demand.

***Alternative Water Supplies***

In the event that preferred water supply projects do not come to fruition, alternative water supply projects are identified within water planning documents. For example, within the SDCWA Regional Water Facilities Master Plan, five reasonably foreseeable alternatives were evaluated, in addition to the preferred method for obtaining future water supply (seawater desalination). The five alternatives to seawater desalination include: 1) conveyance of supplies from the north or MWD with Pipeline no. 6; 2) conveyance of supplies from the east or Regional Colorado River Conveyance Facility (RCRCF); 3) increase local supply above planned yield through a combination of recycled water and groundwater projects; 4) increase water conservation; and 5) no project. These alternatives are discussed below.

The alternative conveyance of supplies from the north or the east is discussed above in Section 2.16.1.1, Potable Water Supply and Distribution, and is unlikely to be implemented by SDCWA. Additionally, the SDCWA alternative to increase local supply above planned yield would increase the development of local supply projects, above what is currently planned, to determine if these supplies can satisfy projected future demands. To obtain the high level of local supply resources identified in this alternative, significant obstacles that have historically hindered development of recycled water and groundwater projects in San Diego County would have to be overcome. For these reasons, it is unlikely this alternative would be feasibly implemented by SDCWA. SDCWA and other local and regional water agencies are currently implementing increased short-term and long term water conservation measures to overcome water shortage obstacles and increase water supplies. For example, SDCWA has implemented a number of short-term conservation strategies, which include limiting irrigation of landscaping to certain days; prohibiting the washing down of paved surfaces; regulating individual car washing procedures; requiring the use of recycled or non-potable water during construction; prohibiting the use of ornamental fountains that do not utilize recycled water; and regulating restaurant and hotel operations.

Long-term water conservation strategies occur on both local and regional levels and are outlined in respective UWMPs, IRPs, Drought Management Plans and Regional IRWMPs. Additionally, in 2008 Governor Schwarzenegger created a new State water conservation goal to achieve a 20 percent reduction in per capita water use statewide by 2020. To achieve this goal, the Governor created a "20 x 2020 Agency Team on Water Conservation" with the focus of developing a Water Conservation Plan to achieve this water conservation goal. Several agencies will help the 20 x 2020 Agency Team on Water Conservation create the Water Conservation Plan, including: the DWR, the SWRCB, the California Energy Commission, the Department of Public Health, the California Public Utilities Commission, the Bureau of Reclamation, and the California Water Conservation Council. In addition to the creation of a Water Conservation Plan, the Governor has identified the following existing long-term water

conservation tools that water users and water agencies may use to achieve the 20 percent reduction in per capita water use statewide by 2020 (SWRCB 2010):

**The California Water Plan**. The latest update published in 2005 provides a strategic plan for water management, laying the foundation for water conservation and other resource management activities.

**Bond funding**. There is grant funding (Proposition 50 and Proposition 84) available to help agencies and regions plan and implement water management programs.

**Access to funds**. A new law enacted in 2007, Assembly Bill (AB) 1420, requires most water agencies to implement a series of water conservation measures in order to be eligible for water management grant funds.

**Efficiency standards**. Showerheads, faucets, toilets, and clothes washers are all more water-efficient because California has led the nation in establishing strong standards. New laws will require even more efficient toilets in the future, new standards for irrigation controllers are planned, and other new building and appliance standards are possible in the future.

**New programs and tools**. The California DWR is working on programs that will help communities and customers conserve water. A Model Water Efficient Landscape Ordinance was developed in 2009 that local governments can adopt as their own. Landscape conservation offers more potential savings than any other single conservation measure. Also, DWR is upgrading the California Irrigation Management Information System, a network of automated weather stations around the State that measure how much water landscapes or crops need. System upgrades will enable the system to communicate with a new generation of automated irrigation controllers.

**Collaboration**. Hundreds of water agencies, environmental organizations, and others work together under the banner of the California Urban Water Conservation Council (CUWCC). Since 1991, this organization has set voluntary standards for conservation programs. CUWCC's approach and standards ensure that California conservation programs are cost-effective and achieve the required savings.

**Regulatory protection**. The SWRCB is entrusted with the responsibility to ensure beneficial use of water in California and prevent waste and unreasonable use.

Although there are many long-term water conservation programs and plans that currently exist, it is likely new programs and approaches would be developed (outside of the 20 x 2020 Agency Team Water Conservation Plan) to meet the Governor's target and help ensure water supply reliability. For example, the California Public Utilities Commission is conducting several water conservation/efficiency pilots to determine associated energy savings pairing water and energy utilities' programs. The option of curtailing development (i.e., no project alternative) in the unincorporated County in locations where sufficient water is potentially not available at build-out would be the responsibility of the County, which has the land use authority to approve or deny proposed development projects. Reducing the development densities identified in the proposed General Plan Update would result in the proposed project not meeting its project objectives. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in reduced impacts associated with water supply as compared to the proposed project.

### *Environmental Impacts of Water Supply Sources*

To evaluate the potential impacts of the methods that may be used to obtain additional water supply, this document hereby incorporates by reference the Final EIR for the SDCWA Regional Water Facilities Master Plan dated November 2003 (SCH No. 2003021052). This document can be found on SDCWA's website at www.sdcwa.org and is summarized below.

The EIR for the SDCWA Regional Water Facilities Master Plan evaluates a program of water supply projects. The Master Plan does not describe every proposed facility in detail, but describes the types of facilities needed to meet the region's future water needs. For example, while the Master Plan describes a proposal to develop seawater desalination as a new regional water supply, it does not provide an in-depth analysis of any specific seawater desalination project.

The EIR for the SDCWA Regional Water Facilities Master Plan determined that multiple environmental impacts associated with the construction of water supply projects would potentially occur. Of all of the potential methods to ensure additional water supply, water conservation is the only approach which would not result in adverse environmental impacts. Other water supply projects, including desalination projects, the conveyance of supplies from the north, east or west, or increasing local supply above planned yield have the potential to result in significant environmental impacts. A summary of potentially significant environmental effects from implementation of proposed SDCWA water supply projects is identified in Table 2.16-9. As shown in this table, potentially significant environmental impacts associated with the following environmental issues may occur: land use, water resources, biological resources, transportation and traffic, noise, air quality, utilities and public services, aesthetics, geology and soils, cultural resources, public safety and hazardous materials, paleontological resources, agricultural resources, and recreation. The Final EIR for the SDCWA Regional Water Facilities Master Plan determined that mitigation proposed in the document would reduce all potentially significant environmental impacts to a level that is less than significant (SDCWA 2003). Therefore, the water supply projects contained in the SDCWA Regional Water Facilities Master Plan, which would provide additional future water supply to the 15 SDCWA member agencies in the unincorporated County, have been adequately evaluated and mitigated on a programmatic level, consistent with CEQA.

On a project level, any future facility development of a specific water supply project in the unincorporated County would be required to conduct environmental review pursuant to CEQA (and/or NEPA if a federal agency is involved) prior to approval. CEQA and NEPA require detailed information to be provided regarding the potentially significant environmental effects that a proposed project is likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce or avoid the significant impacts identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance. However, some environmental impacts associated with the construction of a specific water supply project may be significant and unavoidable, such as impacts associated with noise, cultural resources, hydrology/water quality, and/or biological resources. Projects proposing the construction or expansion of water supply projects would be approved by the individual water districts and would not be subject to discretionary approval by the County. Water districts are able to serve as their own lead agency under CEQA.

## Groundwater Dependent Water Districts

### *Future Water Demand*

Table 2.16-2 identifies the existing conditions (year 2004) housing units and population within each groundwater dependant water district's service area, in addition to identifying the projected housing and population for these service areas under implementation of the proposed General Plan Update. The percentage of growth each water district would experience in housing units and population is also identified in this table. As shown in Table 2.16-2, all 14 groundwater dependent water districts that serve the unincorporated County would experience growth in population and housing under implementation of the proposed General Plan Update. Groundwater dependent districts that would experience the greatest percentage growth under implementation of the General Plan Update include BWD (964 percent increase in both population and housing); CWSMD (622 percent increase in housing and 627 percent increase in population); BSPCSD (600 percent increase in housing and 602 percent increase in population); CCWD (400 percent increase in housing and 433 percent increase in population); and DSCD (330 percent increase in housing and 333 percent increase in population). Implementation of the proposed General Plan Update would increase population and housing within all groundwater dependent water districts service area, thereby increasing the demand for potable water service. This would potentially result in some groundwater dependent districts having inadequate water supply to serve the projected demand of the proposed General Plan Update.

Groundwater dependent water districts that would serve the largest population and number of housing units under implementation of the General Plan Update include BWD (13,832 housing units and 21,342 persons), SLRMWD (1,019 housing units and 2,953 persons), and PMWD (566 housing units and 1,689 persons). It should be noted that although these groundwater dependent districts would serve the most people and homes under the General Plan Update, they generally would not experience substantial percentage growth when compared to existing conditions.

### *Future Water Supply*

As part of this EIR, a groundwater study was prepared to evaluate the impacts of the proposed General Plan Update land uses on groundwater resources within the groundwater dependent portion of the County. The groundwater study results provide a regional level screening tool to evaluate impacts of the proposed General Plan Update land uses by identifying localized areas within each basin which would be currently impacted with groundwater constraints and determining the potential for constraints to be exacerbated upon implementation of the General Plan Update.

Each groundwater dependent district's groundwater supply is shared with a variety of private and public well users. Therefore, these water districts must be evaluated in the context of the basin in which it lies to determine potential supply issues. For groundwater dependent areas, the County Groundwater Study calculated recharge to 86 basins on a month by month basis through 34 years, estimating the amount of groundwater in storage within each basin, and then applying groundwater demand under existing conditions as well as at build out of the various land uses proposed under the General Plan Update. This modeling determined whether there would be a sustainable supply of groundwater to meet the demand of the General Plan Update through the 34 year period. Additional information regarding the results and methodology used for the County Groundwater Study can be found in Section 2.8, Hydrology and Water Quality.

The complete study is provided in Appendix D, County of San Diego General Plan Update Groundwater Study.

As discussed in Section 2.8, Hydrology and Water Quality, 10 groundwater basins have been identified as potentially experiencing substantial depletion in groundwater in storage from build-out of the proposed General Plan Update. These include Ballena Basin, Barona Basin, Engineer Springs Basin, Guatay Basin, Las Lomas Muertas Basin, Lee Basin, Lyon Basin, Morena South Basin, San Felipe Basin and Spencer Basin. Table 2.16-10 identifies the groundwater dependent water districts that serve the unincorporated County, in terms of the watersheds, hydrological areas and hydrologic subareas from which they obtain their groundwater supplies. This information provides context as to what groundwater basin each groundwater dependent water district utilizes to supply users with potable water. As shown in this table, both the JCSWD and the MPCSD utilize the Spencer and San Felipe Groundwater Basins, which would experience substantial declines in groundwater in storage under buildout of the land uses proposed under the General Plan Update. This could potentially result in inadequate groundwater water supplies for these districts.

It should also be noted that both BSPCSD and BWD utilize the Borrego Valley aquifer, which has a well documented groundwater overdraft condition. Year after year groundwater extraction in Borrego Valley exceeds the amount of groundwater that is recharged back into the aquifer. As discussed in the County Groundwater Study, groundwater impacts from the overdraft condition in Borrego Valley are already occurring and would continue to worsen as groundwater usage continues from development of land uses consistent with the General Plan Update. Current impacts include dry wells, decreased well efficiency and increased pumping costs as water levels continue to decline. Under implementation of the General Plan Update, these impacts would continue and more wells would need to be replaced as water levels drop below perforated levels. Also, water quality impacts would occur as decreased water levels would induce flow of high salinity, poor quality connate water found in deeper formational materials of the aquifer. This would eventually necessitate additional expensive treatment of groundwater to make the water suitable as a drinking water supply. According to the County Groundwater Study, the proposed General Plan Update would allow for up to 8,689 additional residential units to be developed in Borrego Valley, which would be anticipated to use approximately 8,255 acre-feet of groundwater per year (0.95 acre-feet per residential unit). This would increase the overdraft condition to over 22,000 acre-feet per year and the aquifer would be depleted much quicker than is currently estimated. The results of the County Groundwater Study indicate that under buildout of the proposed General Plan Update, BSPCSD District and BWD would potentially have inadequate water supply to serve its service area.

Water districts that are reliant upon groundwater may consider alternative supply sources such as trucking in water to supplement declining groundwater supply, importing groundwater from another basin, groundwater recharge and groundwater banking, or importing water from the SDCWA. However, these alternative supply sources are generally considered infeasible due to the required infrastructure improvements and expansions, extensive costs, lack of sustainability, and associated environmental impacts.

### *Environmental Impacts of Water Supply Sources*

The drawdown of groundwater supplies from increased water supply sources would result in impacts on ecosystems because groundwater withdrawals can significantly lower groundwater levels in an area and therefore cause a loss of flow in a surrounding river or other water body

due to seepage through the riverbed. This reduced flow can affect plant and animal species in local water bodies in addition to the hydrology and water quality of the affected water body. Additionally, high salinity, poor quality water often occurs in deeper formational materials of an aquifer, such as Borrego Valley aquifer. Water quality impacts occur as decreased water levels induce flows of poor quality water found in deeper formational materials of the aquifer. This may necessitate additional expensive treatment of groundwater to make the water suitable as a drinking water supply. In addition to the impacts of groundwater extraction and recharge, there would be environmental impacts related to the construction of groundwater pumping and recharge facilities. For example, land subsidence could result from the lowering of groundwater levels and air quality, traffic and noise could increase by trucking in water from alternative groundwater basins.

Groundwater recharge (groundwater banking) coupled with the additional pumping could cause water tables to vary up and down more widely and frequently. Artificial recharge by any means will add water to the aquifer at a rate higher than the natural rate, potentially raising groundwater tables to levels that are higher than those that presently occur. Additionally, recovering this banked water could cause groundwater levels to be drawn down to levels that are lower than naturally occur. These wider fluctuations in groundwater levels can exacerbate localized flooding where the water table is very close to the surface, and in drier years draw water tables to levels below the bottom of existing wells. These effects would generally be confined to the local area of recharge and pumping and could be minimized by strategic placement of facilities.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Numerous federal, State and local regulations exist to ensure adequate water supplies are available. These include the following: California Water Code, which controls almost all considerations of water and its use; SB 610, which requires water supply assessments for large projects within cities and counties; SB 221, which requires proof of sufficient water supply for various projects; Urban Water Management Planning Act, which requires water suppliers ensure a reliable water supply; and the Water Conservation Projects Act, which encourages local agencies to implement potential water conservation and reclamation projects.

SB 610 mandates that a city or county request a water supply assessment from a public water purveyor for certain kinds of projects enumerated in Water Code Section 10912. In response to such request, SB 610 requires that the water purveyor of the public water system prepare the water supply assessment to be included in CEQA documentation and approval process for such projects. SB 221 requires affirmative written verification from the purveyor of the public water system that sufficient water supplies are planned to be available for certain residential subdivisions of property prior to approval of a tentative map.

The County also requires that development projects proposing to use imported water provide availability and commitment letters demonstrating sufficient water resources and access to available water facilities. The County of San Diego currently manages anticipated future groundwater demand through the County Groundwater Ordinance (Ordinance #9826, N.S.) and application of CEQA to proposed discretionary permits. The Groundwater Ordinance does not limit the number of wells or the amount of groundwater extraction by existing landowners. However, the Ordinance does have specific measures to mitigate potential groundwater impacts of projects requiring specified discretionary permits. The Groundwater Ordinance has a specific section for Borrego Valley (Section 67.720) which imposes requirements on projects of more than 100 acres, projects requiring a General Plan Amendment, and projects with an annual

demand of more than 20 acre-feet of water. Proposed discretionary permits proposing the use of groundwater in Borrego are subject to the County DPLU Policy Regarding CEQA Cumulative Analyses for Borrego Valley Groundwater Use.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains several policies in the Land Use Element and Conservation Element to assist in planning for an adequate water supply. Goal LU-8 would promote sustainable aquifers and functional groundwater recharge areas. Policies LU-8.1 and LU-8.2 support this goal by requiring that densities and development in groundwater dependent areas be consistent with the long-term sustainability of groundwater supplies. Goal LU-13 requires a balanced and regionally integrated water management approach to ensure the long-term viability of San Diego County's water quality and supply. Policies LU-13.1 and 13.2 support this goal by committing water districts and future development to achieving an adequate water supply.

In the Conservation and Open Space Element, Goal COS-4 requires a balanced and regionally integrated water management approach to achieve the long-term viability of San Diego County's water quality and supply. Policies COS-4.1, COS-4.2, COS-4.3, and COS-4.4 support this goal by increasing water conservation, requiring drought-efficient landscaping, maximizing stormwater filtration, and reducing groundwater contamination. Goal COS-5 ensures the protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high quality water resources. Policies COS-5.2 and COS-5.5 support this goal by establishing policies to minimize impervious surfaces and prevent groundwater contamination.

**Summary**

Implementation of the proposed General Plan Update would increase the number of housing units and populations served within the service areas of SDCWA member water districts and groundwater dependent water districts. Although multiple planning documents exist to ensure a reliable water supply is available for future growth within the County, issues such as cutbacks in imported water due to regulatory restrictions on pumping from the State Water Project were unaccounted for in these documents. Additionally, the combined effect of the impacts related to obtaining additional water supplies, the uncertainties inherent in obtaining those supplies, and construction impacts related to extraction, processing and/or conveyance of additional water supply leads to the conclusion that implementation of the proposed General Plan Update would be potentially significant.

In addition, the County Groundwater Study (DPLU 2009f) projects that some groundwater basins throughout the County would be impacted upon build out of the proposed General Plan Update. This would result in some groundwater dependent water districts having a potentially inadequate water supply. While existing County policies and regulations and the proposed General Plan Update goals and policies are intended to assist in securing an adequate water supply, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact to water supply and specific implementation programs are identified as mitigation.

### *2.16.3.5 Issue 5: Adequate Wastewater Facilities*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would result in a determination by the wastewater provider which serves or may serve the project area that it has inadequate capacity to service the project's projected demand in addition to the provider's existing commitments.

**Impact Analysis**

Twenty-five wastewater districts service the unincorporated County. Unincorporated areas not serviced by wastewater districts typically utilize septic systems for wastewater disposal. As required by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, the San Diego LAFCO conducted multiple Municipal Service Reviews (MSRs) of wastewater districts that service the unincorporated area, including the 2007 MSR of County Sanitation Districts and the 2004 Southern San Diego County Water and Sewer MSR. The MSRs evaluated the future wastewater service capabilities of the following wastewater service providers: SVSD, Lakeside Sanitation District, ASD, JSD, PVSD, PDMWD, OWD, HWD, and SA/SB. Results of these MSRs indicated that while some wastewater service providers would have adequate capacity to provide service to the development of future land uses as designated in the proposed General Plan Update, others would require upgrades or have inadequate capacity to serve projected growth within the County. The results of the LAFCO MSRs are discussed below.

SVSD would have adequate system capacity reserves available to support future service needs. Lakeside Sanitation District was found to potentially require additional SDMWD capacity in the future to support further sewer-dependent growth in the Lakeside area. This capacity would or would not be available depending on overall SDMWD service demands at that time. ASD would require additional SDMWD capacity in the future to support continued sewer dependent growth in the Alpine area. JSD is currently under a sewer moratorium, however most future growth would occur in the greater Julian area outside sanitation district boundaries. PVSD is near capacity and may not be able to support additional sewer dependent growth without collection and treatment facility expansion. PDMWD, OWD, HWD, and SA/SB would have adequate sewer infrastructure to provide efficient services for the projected future population. The MSRs also determined that anticipated growth would be unevenly distributed throughout the region and each of the region's sewer service providers would experience distinctly different impacts on existing facilities, planning, capital needs, and staffing.

Implementation of the proposed General Plan Update would require additional demand on existing sewer systems from increased sewage flows from future residential, commercial and industrial land uses. San Diego LAFCO MSRs from 2004 and 2007 have evaluated various wastewater districts' abilities to service future wastewater demand based on anticipated regional population forecasts. Generally, these MSRs determined that while some wastewater districts have capacity to serve the projected increase in demand under the proposed General Plan Update, others would have inadequate capacity to serve the projected demand in addition to their existing commitments.

As shown in Table 2.16-4, the majority wastewater districts that serve the unincorporated County would experience growth in both population and housing under implementation of the proposed General Plan Update. Wastewater districts that would experience the greatest growth under implementation of the General Plan Update include BWD (964 percent increase in both housing units and population); BSPCD (600 percent increase in housing and 602 percent increase in population); CWSMD (622 percent increase in housing and 627 percent increase in population); PMWD (308 percent increase in housing and 344 percent increase in population) and ASD (268 percent increase in housing and 269 percent increase in population). Implementation of the proposed General Plan Update would result in an additional demand on existing sewer systems from increased sewage flows created by additional population and housing units. This would result in some wastewater districts having inadequate facilities to serve the projected demand.

Wastewater districts that would serve the largest populations and number of housing units under implementation of the General Plan Update include OWD (79,539 housing units and 236,309 persons); PDMWD (74,422 housing units and 211,348 persons); SVSD (28,199 housing units and 86,999 persons); and Ramona MWD (14,174 housing units and 43,510 persons). It should be noted that although these wastewater districts would service the greatest population and housing units under implementation of the General Plan Update, they generally would not experience substantial percentage growth when compared to existing conditions.

An additional way to evaluate the likelihood that the development of future land uses, as designated in the proposed General Plan Update, would result in a determination by a wastewater provider that it has inadequate capacity to service the demand can be evaluated by examining allocated EDUs and available EDUs. Allocated EDUs refer to the aggregate number of EDUs issued by each sanitation district to the customers within that particular district. Available EDUs refers to the difference between the pass-through capacity and the allocated EDU, measured in EDU. If a wastewater district has more allocated EDUs than available EDUs, this indicates that the service system capabilities are not sufficient to serve the projected growth of the community. As discussed in Section 2.16.1.2, the following wastewater districts have a greater number of allocated EDUs than available EDUs, indicating insufficient facilities to service the community at build out: ASD; Lakeside Sanitation District, PDMWD, Ramona MWD, SVSD, WGSMD, BWD, BSD, CWSMD, FPUD, and JSD. Wastewater districts that have larger available EDUs than allocated EDUs, indicating sufficient growth for build out of the community and beyond, include OWD, Cardiff, FRCSD, RSFCSD, VWD, and WPCSD. The General Plan Update would designate land uses that would increase population and housing in areas where wastewater districts do not have adequate service systems in place to serve the projected growth of the community.

Additionally, the development of future land uses as designated in the proposed General Plan Update would result in the construction of residential, commercial and industrial structures in the western portion of the unincorporated County. The wastewater districts that serve this area include Lakeside Sanitation District, ASD, and SVSD, which do not have adequate capacity to serve the projected population growth. Therefore, designating land uses that would require wastewater treatment services in these areas would result in a determination that wastewater service is inadequate to serve the new development.

**Federal, State and Local Regulations and Existing Regulatory Processes**

In addition to the goals and policies proposed as part of the General Plan Update, numerous federal, State and local regulations exist to ensure safe and adequate wastewater facilities are available. These include the: Federal Water Pollution Control Act, which regulates discharges of pollutants into waters of the U.S.; Porter-Cologne Water Quality Control Act, which controls polluted discharges into State waters; USO, which regulates sewage collection and treatment systems; County Code 68.101, which specifies conditions and procedures for sewage facilities; and County Fee Ordinances, which require annual sewer service, connection and annexation fees.

The County also requires that development projects proposing to use sewer include in their applications the necessary availability and commitment letters demonstrating sufficient wastewater treatment capacity and access to available sewer facilities. This requirement is further enforced with BOS Policies I-25, I-36, I-48, and I-84.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains one goal and supporting policy within the Land Use Element to assist in providing adequate wastewater facilities throughout the unincorporated County. In the Land Use Element, Goal LU-4 would require coordination with the plans and activities of other agencies that relate to issues such as land use, safety, community character, transportation, energy, and other infrastructure in the unincorporated County and the natural resources of the region. Policy LU-4.3 supports this goal by requiring projects to consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate. Regional planning and coordination reduces the risk that development will not be served by adequate wastewater facilities.

**Summary**

The development of future land uses as designated in the proposed General Plan Update would result in increased demand on existing sewer systems due to increased sewage flows from residential, commercial and industrial land uses. While some wastewater districts have capacity to serve additional wastewater users, others would have inadequate capacity to serve increased demand, in addition to their existing commitments. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to assist in providing adequate wastewater facilities, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact related to adequate wastewater facilities and specific implementation programs are identified as mitigation.

## *2.16.3.6 Issue 6: Sufficient Landfill Capacity*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would have a significant impact if it would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

## Impact Analysis

Physical landfill capacity is defined as the remaining volumetric capacity of existing landfills. Physical capacity represents the volume available to be filled, and is different from the rate at which materials would enter the landfill. Table 2.16-5 identifies landfills located in San Diego County and their capacity information. As shown in this table, the total remaining capacity for active landfills open to the public is 120,982,940 tons. The total remaining capacity for all landfills, including Las Pulgas, San Onofre, Gregory Canyon (proposed) and Campo (proposed), is 188,369,512 tons. The Las Pulgas and San Onofre landfills are owned and operated by the USMC, and are not available for public disposal. As of February 2009, the Gregory Canyon and Campo landfills were continuing to obtain various permits and had not yet begun construction. The rate at which materials would enter these landfills is restricted by daily traffic and tonnage limits at disposal and transfer facilities, even though there may be sufficient physical capacity. The permitted daily disposal tonnages are specified in the Solid Waste Facility Permit (SWFP) for the facility, and sometimes in other permits. These limits are a matter of traffic control and health and welfare protection, and are changed through the permit review, modification or revision process.

Due to factors such as population growth, economics and development, there has been a consistent increase in annual solid waste disposal tonnages. The 2005 IWMP Siting Element for the County estimates that the annual rate of increase in solid waste disposal was approximately 5.4 percent from 2002 to 2003, which is the most current model available. This rate is projected to gradually decrease to approximately 3.4 percent from 2016 to 2017. The 2005 IWMP Siting Element predicts disposal will increase from 3.7 million tons in 2002 to 6.1 million tons in 2017. Based on the 1995 - 2001 disposal tonnages, imported and exported tonnages, and a 50 percent diversion rate by the year 2005, it is estimated that San Diego County jurisdictions will need to accommodate disposal capacity for over 5.6 million tons of solid waste in 2017 and 6.1 million tons in 2020. These numbers reflect the most current solid waste disposal projections from the Siting Element. Within the Siting Element, the existing landfill disposal and capacity analysis was based upon historical rates of solid waste disposal, rather than population projections. The annual rate of increase in the disposal rate was approximately 5.4 percent from 2002 to 2003 and estimated to gradually decrease to approximately 3.4 percent from 2016 to 2017, due to recycling and conservation efforts. Implementation of the proposed General Plan Update is unlikely to increase the annual disposal rate above the Siting Element projections. Rather, it is more likely that implementation of the proposed General Plan Update would reduce disposal rates more than those projected, due to the proposed goals and policies discussed below that support additional recycling efforts and waste reduction measures. Regardless, the solid waste disposal needs in the General Plan Update horizon year (2030) would be greater than 6.1 million tons and additional landfill capacity would be required, or diversion technologies would have to be implemented, such as recycling. Therefore, the development of future land uses as designated in the proposed General Plan Update would have the potential to be served by landfills with insufficient capacity to accommodate future solid waste disposal needs.

The Siting Element also states that if no additional in-County capacity is added, the County will run out of physical landfill capacity in 2016. This projection is shown in Table 2.16-11. The proposed Gregory Canyon Landfill, when built, would provide an additional 33.4 million tons of capacity, and the Campo landfill, if/when built would provide an additional 28 million tons of capacity. The recently approved Master Plan for the Sycamore Landfill would also add 116.6

million tons to the capacity in the County. The additional capacity of the three proposals would provide an excess of 179 million tons of capacity.

However, the siting of a new solid waste disposal facility, or expansion of an existing solid waste facility, is often a controversial and lengthy process. Implementation of the proposed General Plan Update would result in an increase in solid waste disposal needs from future residential, commercial and industrial land uses that require solid waste disposal facilities. If the Gregory Canyon Landfill Project, Sycamore Landfill Project, Campo Landfill Project or other solid waste capacity increasing project does not occur, the San Diego Siting Element estimates that the County will run out of physical landfill capacity in 2016. Therefore, implementation of the proposed General Plan Update has the potential to be served by landfills with insufficient capacities to accommodate future solid waste disposal needs. As an alternative, waste recycling at a 75 percent rate County-wide would also reduce or eliminate the necessity for additional landfill space (County of San Diego Siting Element 2005).

**Federal, State and Local Regulations and Existing Regulatory Processes**

Numerous federal, State and local regulations exist to ensure adequate solid waste facilities are available. These include IWMA, which regulates the management of solid waste within the State; Non-Exclusive Solid Waste Management Agreement, which regulates waste collection in a market driven business; and IWMP, which presents strategies to assist in the siting of solid waste disposal facilities.

**Proposed General Plan Update Goals and Policies**

The General Plan Update contains several goals and policies within the Land Use Element to assist in ensuring adequate landfill capacity are available to the unincorporated County. Goal LU-12 requires sustainable infrastructure, public facilities and essential services that meet community needs and are provided concurrent with growth and development. Policies LU-12.1 and LU-12.2 support this goal by requiring concurrency of infrastructure and services with development while requiring the maintenance of such services. Goal LU-16 promotes appropriately sited solid waste management facilities in order to reduce environmental impacts and potential land use incompatibilities. Policies LU-16.1, LU-16.2 and LU-16.3 support this goal by encouraging additional recycling facilities and minimizing environmental impacts with solid waste facilities.

In the Conservation and Open Space Element, Goal COS-17 encourages sustainable solid waste management. Policies COS-17.1, COS-17.2, COS-17.3, COS-17.4, COS-17.6, COS-17.7 and COS-17.8 support this goal by requiring landfill waste management, composting, methane recapture, and recycling.

**Summary**

If additional landfills are not constructed and existing landfills are not expanded, the IWMP Siting Element estimates that the County will run out of physical landfill capacity by 2016. Therefore, the development of future land uses as designated in the proposed General Plan Update would have the potential to be served by landfills with insufficient capacity to accommodate the future solid waste disposal needs. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to provide adequate solid waste disposal facilities for the future, specific measures that implement these

policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would result in a potentially significant impact related to landfill capacity and specific implementation programs are identified as mitigation. The 2005 Siting Element determined that if the entire San Diego County, including incorporated and unincorporated areas, could achieve a waste recycling rate of 75 percent, compared to the present rate of 50 percent, there would be no need for additional landfills in the County, including the Gregory Canyon and Campo landfills (DPW 2005).

### *2.16.3.7 Issue 7: Solid Waste Regulations*

**Guidelines for Determination of Significance**

Based on Appendix G of the CEQA guidelines, the proposed County General Plan Update would have a significant impact if it would not comply with federal, State and local statues and regulations related to solid waste.

**Impact Analysis**

The development of future land uses as designated in the proposed General Plan Update would be required to comply with all applicable federal, State and local statues and regulations related to solid waste. The San Diego Solid Waste Local Enforcement Agency (LEA) has the primary responsibility for ensuring the proper operation and closure of solid waste facilities and disposal sites in San Diego County, excluding the City of San Diego. They also have responsibilities for ensuring the proper storage and transportation of solid wastes. The LEA: 1) provides solid waste inspection and permitting services to the various jurisdictions within the County; 2) conducts enforcement, inspection and permitting for solid waste facilities, operations, and disposal sites, including those which are permitted, exempt, illegal, inactive, closed, or abandoned; 3) maintains LEA certification in good standing with CIWMB; 4) maintains communication with the CIWMB as well as other local enforcement and regulatory agencies; and, 5) promotes interagency cooperation with all entities involved in solid waste management and disposal in San Diego County.

Additionally, the CIWMB is the State agency responsible to oversee, manage, and track California's 92 million tons of waste generated each year. The CIWMB promotes a sustainable environment where resources are not wasted but can be reused or recycled in partnership with all California. In addition to many innovative programs and incentives, the CIWMB promotes the use of new technologies for the practice of diverting California's resources away from landfills. California passed the IWMA of 1989 (AB 939) when California was disposing 90 percent of its waste and recycling only 10 percent. The act mandated that California's 450 jurisdictions implement waste management programs to achieve a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. In 2005, California diverted 52 percent of its waste stream from landfills. Therefore, the State, including San Diego County, is in compliance with this law. The development of future land uses as designated in the proposed General Plan Update would also be required to comply with this law.

**Federal, State and Local Regulations and Existing Regulatory Processes**

In addition to the goals and policies proposed as part of the General Plan Update, numerous federal, State and local regulations exist that are related to solid waste. These include

California IWMA, which regulates the management of solid waste within the State; Non-Exclusive Solid Waste Management Agreement, which regulates waste collection in a market-driven business; and IWMP, which presents strategies to recycle as well as assist in the siting of solid waste disposal facilities.

**Proposed General Plan Update Goals and Policies**

The goals and policies discussed above under Section 2.16.3.6, Issue 6: Sufficient Landfill Capacity, would also reduce the potential for future projects to be in non-compliance with the California IWMA, the Countywide IMWP and other applicable solid waste regulations and are hereby incorporated by reference.

**Summary**

Development of future land uses, as designated in the proposed General Plan Update, would be required to comply with federal, State and local statutes and regulations related to solid waste. Additionally, General Plan Update goals and policies regarding solid waste disposal would further ensure compliance with applicable regulations. Therefore, impacts associated with solid waste regulations would be less than significant.

### *2.16.3.8 Issue 8: Energy*

**Guidelines for Determination of Significance**

The proposed General Plan Update would be considered to have a significant impact if it would require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

**Impact Analysis**

Development of land uses as designated in the proposed General Plan Update would require energy for construction and operation, thereby increasing energy demand in the County. The increase in energy demand would affect energy facilities located within the unincorporated County as well as energy facilities that serve unincorporated areas but are located outside the County. Because energy supply and demand does not differentiate between jurisdictional boundaries, it is difficult to discuss energy in terms of the unincorporated area alone. Therefore, unless otherwise specified, data presented in this section represents current energy conditions for the entire San Diego County region. Electricity demand is projected to increase by nearly 24 percent between 2005 and 2016 at an average growth rate of 1.9 percent per year. By the year 2030, electricity peak demand is projected to nearly double, increasing by more than 4,000 MW. Demand for natural gas is expected to grow from 1,423 MMtherms in 2002 to about 1,642 MMtherms in 2030, an increase of approximately 15 percent.

To accommodate the projected increase in energy demand, energy facilities would need to be constructed or expanded, which would have the potential to cause significant environmental effects. The projected increase in demand is anticipated to be met by a mix of energy technologies that include generation plants located both within and outside the unincorporated County, many of which have not yet been constructed. Any future energy projects would be

required to conduct environmental review pursuant to CEQA and/or NEPA depending on the lead agency approving the project. CEQA and NEPA require proposed projects to provide detailed information on the potentially significant environmental effects they are likely to have, list ways in which the significant environmental effects would be minimized, and identify alternatives that would reduce of avoid the significant identified for the project. To the extent feasible, significant environmental impacts would be mitigated to below a level of significance. However, some environmental impacts associated with the construction or expansion of energy facilities would be significant and unavoidable, such as impacts associated with aesthetics, biological resources, air quality, and noise.

The need for additional energy facilities would also be compounded by the fact that many power plant units in the region are quickly nearing technological and economical obsolescence. The San Diego region also has no facilities to store natural gas, and would need to build such facilities in the future to meet projected demand. The development of most new energy facilities would be proposed by other agencies and districts, and would not be subject to discretionary approval by the County. The development of future land uses as designated in the proposed General Plan Update would have the potential to increase the energy demand through the year 2030, and would require the need for energy facilities to be constructed or expanded either within or outside of the County's jurisdiction.

**Federal, State and Local Regulations and Existing Regulatory Processes**

The California Energy Efficiency Standards for residential and non-residential buildings would reduce the potential for impacts related to excessive energy usage and the need for expansion or construction of energy facilities.

For new development projects in the County jurisdiction that would result directly in new or expanded facilities, the County evaluates all potentially significant impacts that can result from the associated infrastructure. Such improvements must comply with applicable regulations protecting environmental resources, such as the Zoning Ordinance, Noise Ordinance, RPO, BMO, HLP Ordinance, and relevant BOS Policies. In addition, environmental impacts shall be minimized and mitigated to the extent feasible for all such projects pursuant to CEQA.

**Proposed General Plan Update Goals and Policies**

The proposed General Plan Update contains several goals and polices within the Conservation and Open Space Element that would reduce energy consumption and the need to develop new energy facilities. Goal COS-14 promotes sustainable land use development techniques. Policy COS-14.7 supports this goal by encouraging alternative energy sources for development projects. Goal COS-15 would reduce of energy usage through energy efficiency, conservation measures, and renewable technologies. Policies COS-15.1, COS-15.2, COS-15.3, COS-15.4, and COS-15.5 support this goal by encouraging energy efficiency, green building programs, and energy recovery.

**Summary**

Development of land uses as designated in the proposed General Plan Update would require energy for construction and operation, thereby increasing energy demand in the County. To accommodate the projected increase in energy demand, energy facilities would need to be constructed or expanded, which would have the potential to cause significant and unavoidable

environmental effects. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to reduce energy demand related environmental impacts, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project would have the potential to result in a significant impact associated with the construction of energy facilities and specific implementation programs are identified as mitigation.

## 2.16.4 Cumulative Impacts

The geographic scope of the cumulative impact analysis for utilities is the entire County, including incorporated areas, whose population is served by many individual utility, service system, and energy providers within specific service areas.

### *2.16.4.1 Issue 1: Wastewater Treatment Requirements*

Cumulative projects within the region, such as those proposed under adjacent city and county general plans or on tribal land, would result in an increase in residential, commercial and industrial development that would require wastewater treatment services. Similar to the proposed General Plan Update, an increase in wastewater treatment demand that is disproportionate to wastewater treatment capabilities would result in a violation of the treatment requirements of the RWQCBs. However, compliance with regulations such as the Federal Water Pollution Control Act, California Water Code, Porter-Cologne Water Quality Control Act, Water Conservation Projects Act, DEH regulations, specific jurisdictional ordinances, and CEQA would reduce cumulative impacts related to potential wastewater treatment violations to below a significant level and a significant cumulative impact would not occur. Therefore, implementation of the General Plan Update, in combination with the identified cumulative projects, would not result in a significant cumulative impact.

### *2.16.4.2 Issue 2: New Water and Wastewater Treatment Facilities*

Cumulative projects, such as those proposed under adjacent city and county general plans or on tribal land, would result in an increase in residential, commercial and industrial development that would increase the demand for water and wastewater treatment services. An increase in the demand for these services has the potential to require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which would cause significant environmental effects. Most future water treatment or wastewater treatment projects would be required to conduct environmental review pursuant to CEQA or NEPA. To the extent feasible, significant environmental impacts would be mitigated to below a level of significant, consistent with CEQA or NEPA. In addition, most cumulative projects would be required to comply with some or all of the following regulations: SDWA, Federal Water Pollution Control Act, California Water Code, California Drinking Water Standards, Porter-Cologne Water Quality Control Act, Water Conservation Projects Act, USO, County Code 68.101, County Fee Ordinances, and BOS Policies, which would also reduce the potential for significant impacts to occur. Therefore, cumulative impacts associated with the development of water and wastewater facilities from cumulative projects would not be significant. Therefore, implementation of the proposed General Plan Update, in combination with the identified cumulative projects, would not result in a significant cumulative impact.

### 2.16.4.3 Issue 3: Sufficient Stormwater Drainage Facilities

Cumulative projects, such as those proposed in the SCAG RTP, SANDAG RTP, and adjacent city and county general plans, would result in an increase in impervious surfaces from development which would increase stormwater runoff volumes. To effectively manage the increased runoff, the construction of new stormwater drainage facilities or the expansion of existing facilities would be required, the construction of which would have the potential to result in significant environmental effects. Most future stormwater drainage facilities would be required to conduct environmental review pursuant to CEQA or NEPA. To the extent feasible, significant environmental impacts would be mitigated to below a level of significant. In addition, cumulative projects would typically be required to comply with some or all of the following regulations, which would also reduce the potential for a significant cumulative impact to occur: Federal Water Pollution Control Act, California Water Code, and Porter-Cologne Water Quality Control Act. Therefore, impacts associated with the construction of new stormwater drainage facilities from cumulative projects would not be significant. Therefore, the proposed General Plan Update, in combination with the identified cumulative projects, would not result in a significant cumulative impact.

### 2.16.4.4 Issue 4: Adequate Water Supplies

Many water districts that would serve cumulative project areas have prepared and adopted UWMPs and/or other planning documents that include supply and demand projections and procurement strategies to ensure a reliable water supply exists to meet the projected demand within the region. However, the most recent UWMPs available are from 2005 and do not account for factors such as unprecedented multiple dry years in the Colorado River Basin or cutbacks in water imports from other areas of the State, such as those caused by the U.S. District Court decision regarding the endangered Delta smelt (fish). Therefore, cumulative projects would have the potential to increase the demand for potable water in the region in a manner that exceeds existing entitlements and resources. Although regulations such as the California Water Code, SB 610, SB 221, Urban Water Management Planning Act, Water Conservation Projects Act, and San Diego Groundwater Ordinance, are intended to reduce impacts to water supply, impacts in the San Diego region would remain significant and unavoidable. Therefore, a significant cumulative impact would occur.

As discussed above, the proposed project has the potential to result in water demand that exceeds surface water and groundwater availability. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact. The proposed project's contribution would be cumulatively considerable.

### 2.16.4.5 Issue 5: Adequate Wastewater Facilities

Cumulative projects, such as those proposed under adjacent city and county general plans, private projects not included in the proposed General Plan Update, or projects on tribal land, would have the potential to increase demand for wastewater facilities to the point that the wastewater provider has inadequate capacity to serve the projected demand, in addition to the provider's existing commitments. Therefore, cumulative projects would require new facilities, the construction of which could have significant environmental impacts. However, most development of new facilities would be subject to CEQA or NEPA review and would be required

to mitigate environmental impacts to below a level of significance, to the extent feasible. Additionally, multiple federal, State and local regulations exist that pertain to the construction and operation of wastewater facilities, such as the Federal Water Pollution Control Act, Porter-Cologne Water Quality Control Act, USO. Therefore, a significant cumulative impact would not occur. The proposed General Plan Update, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact.

### *2.16.4.6 Issue 6: Sufficient Landfill Capacity*

Many cumulative projects, such as those proposed under adjacent city and county general plans, private projects not included in the proposed General Plan Update, or projects on tribal land, would increase solid waste disposal and management needs within the region. The existing regional landfill facilities do not have the capacity to accommodate the solid waste disposal needs of the cumulative projects. Either new landfill facilities and/or recycling facilities would be needed to meet the anticipated disposal needs. However, in many areas included in the cumulative analysis, such as incorporated cities, it is often difficult to find suitable sites to provide additional landfill facilities that would increase capacity. Therefore, cumulative projects would have a significant cumulative impact associated with insufficient capacity of landfill facilities.

As discussed above, although the establishment of new recycling facilities including mixed recycling facilities, construction and demolition recycling facilities, composting facilities, and biomass-driven electrical generating stations would occur, the proposed project has the potential to be served by a landfill with insufficient capacity to accommodate projected solid waste disposal needs. Therefore, the proposed project, in combination with the identified cumulative projects, would result in a significant cumulative impact. The proposed project's contribution would be cumulatively considerable.

### *2.16.4.7 Issue 7: Solid Waste Regulations*

Cumulative projects, such as those proposed under adjacent city and county general plans, and private projects not included in the proposed General Plan Update, would be required to comply with all applicable federal, State and local statues and regulations related to solid waste. Projects on tribal lands would be subject to only federal and tribal regulations, unless solid waste was transported off tribal lands, which would then require compliance with State and local laws and regulations. Therefore, compliance with applicable regulations would ensure that cumulative projects would not result in a significant cumulative impact. The proposed project, in combination with the identified cumulative projects, would not contribute to a significant cumulative impact.

### *2.16.4.8 Issue 8: Energy*

Multiple cumulative projects relating to energy are considered in this analysis: the California Energy Commission has identified energy projects within the region that will be constructed to meet future energy demands; the Wide-west Energy Corridor project would establish electric and multi-modal transmission corridors within BLM and NFS lands in San Diego and surrounding counties; the Sunrise Powerlink Transmission Project would be constructed to meet the energy demands of the region; and both SDG&E and Southern California Edison have

procurement plans that identify energy projects to be constructed in the future. Cumulative projects would result in the construction of new energy production facilities, transmission facilities, or expansion of existing facilities. Any future energy project would be required to conduct environmental review pursuant to CEQA or NEPA prior to approval. Identified significant environmental impacts would be mitigated to below a level of significance, to the extent feasible. However, due to the large scale nature of these projects, it is reasonably foreseeable that the construction of these facilities would cause significant and unavoidable environmental impacts, such as those associated with air quality, aesthetics, noise, or climate change, that in combination with other cumulative projects would result in a significant cumulative impact.

As discussed above, prior to mitigation, the proposed project has the potential to increase energy demand and require the construction or expansion of energy facilities, which would result in potentially significant direct environmental impacts. The proposed project, in combination with the identified cumulative projects, would also have the potential to contribute to a significant cumulative impact. Therefore, the proposed project's contribution would be cumulatively considerable.

## 2.16.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would result in potentially significant impacts to wastewater treatment requirements, new water and wastewater treatment facilities, sufficient storm water drainage facilities, adequate water supply, adequate wastewater facilities, sufficient landfill capacity, and energy. However, the potential for solid waste regulations to be violated would be less than significant and would not require mitigation. The proposed project would have a potentially significant cumulative impact associated with adequate water supplies, sufficient landfill capacity and energy facilities. The proposed project would not result in a significant cumulative impact related to wastewater treatment requirements, new water and wastewater facilities, sufficient stormwater drainage facilities, and adequate wastewater facilities.

## 2.16.6 Mitigation

### *2.16.6.1 Issue 1: Wastewater Treatment Requirements*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts to wastewater treatment requirements to below a significant level.

**General Plan Update Policies**

**Policy LU-9.4: Infrastructure Serving Villages and Community Cores.** Prioritize infrastructure improvements and the provision of public facilities for Villages and community cores for the intensity of development allowed by the Land Use Map.

**Policy LU-12.1: Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing. In addition to

utilities, roads, bicycle and pedestrian facilities, and education, police, and fire services, transit-oriented infrastructure, such as bus stops, bus benches, turnouts, etc, should be provided, where appropriate.

**Policy LU-12.2: Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

**Policy LU-14.1: Wastewater Facility Plans.** Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans.

**Policy LU-14.2: Wastewater Disposal.** Require that development provide for the adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

**Policy LU-14.3: Wastewater Treatment Facilities.** Require wastewater treatment facilities serving more than one private property owner to be operated and maintained by a public agency. Coordinate the planning and design of such facilities with the appropriate agency to be consistent with applicable sewer master plans.

**Policy LU-14.4: Sewer Facilities.** Prohibit sewer facilities that would induce unplanned growth. Require sewer systems to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive, except:

- When necessary for public health, safety, or welfare;
- When within existing sewer district boundaries;
- When necessary for a conservation subdivision adjacent to existing sewer facilities; or
- Where specifically allowed in the Community Plan.

**Mitigation Measures**

**USS-1.1** Participate in interjurisdictional reviews to gather information on and review and provide comments on plans of incorporated jurisdictions and public agencies in the region.

**USS-1.2** Implement and revise as necessary Board Policy I-84 to ensure adequate availability of sewer /sanitation service for development projects that require it. Also revise Board Policy I-78 to include additional criteria and regulatory requirements restricting the location of small wastewater treatment facilities.

**USS-1.3** Ensure County planning staff participation in the review of wastewater facility long range and capital improvement plans.

### *2.16.6.2 Issue 2: New Water and Wastewater Facilities*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts related to new water and wastewater facilities to below a significant level.

**General Plan Update Policies**

**Policy LU-1.2: Leapfrog Development.** Prohibit leapfrog development which is inconsistent with the Community Development Model. Leapfrog Development restrictions do not apply to new villages that are designed to be consistent with the Community Development Model, that provide necessary services and facilities, and that are designed to meet the LEED-Neighborhood Development Certification or an equivalent. For purposes of this policy, leapfrog development is defined as village densities located away from established Villages or outside established water and sewer service boundaries. (See applicable community plan.)

**Policy LU-4.3: Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

**Policy H-1.3: Housing near Public Services.** Maximize housing in areas served by transportation networks, within close proximity to job centers, and where public services and infrastructure are available.

**Mitigation Measures**

**USS-2.1** Revise Board Policy I-63 to minimize leapfrog development and to establish specific criteria for GPAs proposing expansion of areas designated village regional category. This is intended to limit unexpected demands for new water and wastewater facilities.

**USS-2.2** Perform CEQA review on privately initiated water and wastewater facilities and review and comment on water and wastewater projects undertaken by other public agencies to ensure that impacts are minimized and that projects are in conformance with County plans.

**USS-2.3** Implement, and revise as necessary, the Green Building Program to encourage project designs that incorporate water conservation measures, thereby reducing the potential demand for new water purveyors with the buildout of General Plan Update.

### *2.16.6.3 Issue 3: Sufficient Stormwater Drainage Facilities*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts related to sufficient stormwater drainage facilities to below a significant level.

**General Plan Update Policies**

**Policy LU-6.5: Sustainable Stormwater Management.** Ensure that development minimizes the use of impervious surfaces and incorporates other Low Impact Development techniques as well as a combination of site design, source control, and stormwater best management practices, where applicable and consistent with the County's LID Handbook.

**Policy LU-6.9: Development Conformance with Topography.** Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying stormwater to the maximum extent practicable.

**Policy COS-4.3: Stormwater Filtration.** Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

**Mitigation Measures**

**USS-3.1** Amend the Subdivision Ordinance to add additional design requirements for subdivisions that encourage conservation oriented design. Also amend it to require new residential development to be integrated with existing neighborhoods by providing connected and continuous road, pathway/trail and recreation/open space networks. This will reduce scattered development footprints and increase pervious surfaces in site design, thereby minimizing the need for new stormwater drainage facilities.

**USS-3.2** Prepare Subdivision Design Guidelines that establish a process to identify significant resources on a project site, identify the best areas or development and create a conservation oriented design for both the project and open space areas.

**USS-3.3** Use the County Guidelines for Determining Significance for Surface Water Quality and Hydrology to identify adverse environmental effects on water quality.

**USS-3.4** Implement the LID handbook and establish LID standards for new development to minimize runoff and maximize infiltration.

**USS-3.5** Evaluate the environmental effects of all proposed stormwater drainage facilities and ensure that significant adverse effects are minimized and mitigated.

### *2.16.6.4 Issue 4: Adequate Water Supplies*

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impact associated with adequate water supply. However, even with mitigation in place, implementation of the proposed General Plan Update would accommodate an increase in population and housing within the unincorporated County, which would increase water demand and thereby potentially result in an inadequate water supply. The General Plan Update policies and feasible mitigation measures (described below), would reduce impacts associated with water supply; however, not to below a significant level. Additional mitigation measures have been identified

that would fully reduce impacts to below a level of significance; however, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

*Infeasible Mitigation for Areas Dependent on Groundwater*

As described in Section 2.8.6.2, Hydrology and Water Quality, Issue 2: Groundwater Supplies and Recharge, additional mitigation measures were considered in attempting to reduce impacts associated with inadequate groundwater supply to a less than significant level; however, the County determined that these measures would be infeasible for the reasons outlined in Section 2.8.6.2. Therefore, the infeasible mitigation measures identified in Section 2.8.6.2, Hydrology and Water Quality, Issue 2: Groundwater Supplies and Recharge would not be implemented as part of the General Plan Update project, and impacts associated with groundwater supply would remain significant and unavoidable.

*Infeasible Mitigation for Areas Dependent on Imported Water*

- Implement a Countywide moratorium on building permits and development applications in any areas of the County that would have an inadequate imported water supply to serve future development until adequate supplies are procured. This would effectively result in no increase in the amount of imported water demand within the unincorporated County. However, this measure would impede the County's ability to implement the General Plan Update because it would prohibit future development in areas identified for increased growth in the General Plan Update. This mitigation measure would also conflict with the project objective to support a reasonable share of projected regional population growth. Therefore, for the reasons listed above, this mitigation measure would not be implemented.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would be significant and unavoidable. Chapter 4.0, Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with water supply as compared to the proposed project. However, without significant reductions in the overall growth of the County, impacts would still remain significant and unavoidable.

**General Plan Update Policies**

The following policies would reduce impacts associated with water supply availability, although not to below a significant level.

**Policy LU-8.1: Density Relationship to Groundwater Sustainability.** Require land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.

**Policy LU-8.2: Groundwater Resources.** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:

- In areas dependent on currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions. Encourage programs to alleviate overdraft conditions in Borrego Valley.

- In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.

**Policy LU-13.1: Adequacy of Water Supply.** Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures to reduce demand.

**Policy LU-13.2: Commitment of Water Supply.** Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

**Policy COS-4.1: Water Conservation.** Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.

**Policy COS-4.2: Drought-Efficient Landscaping.** Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.

**Policy COS-4.3: Stormwater Filtration.** Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

**Policy COS-4.4: Groundwater Contamination.** Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.

**Policy COS-5.2: Impervious Surfaces.** Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

**Policy COS-5.5: Impacts of Development to Water Quality.** Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with water supply availability, although not to below a significant level.

**USS-4.1** Review General Plan Amendments for consistency with the goals and policies of the General Plan. This shall include designating groundwater dependent areas with land use density/intensity that is consistent with the long-term sustainability of groundwater supplies; locating commercial, office, civic, and industrial development in villages, town centers or at transit nodes; and ensuring that

adequate water supply is available for development projects that rely on imported water.

**USS-4.2** Implement, and revise as necessary, the County Green Building Program with incentives for development that is energy efficient and conserves resources, including both groundwater and imported water.

**USS-4.3** Implement Policy I-84 requiring discretionary projects obtain water district commitment that water services are available. Also Implement and revise as necessary Board Policy G-15 to conserve water at County facilities.

**USS-4.4** Implement the Groundwater Ordinance to balance groundwater resources with new development and implement and revise as necessary the Watershed Ordinance to encourage the removal of invasive species to restore natural drainage systems, thereby improving water quality and surface water filtration. Also revise the Ordinance Relating to Water Efficient for Landscaping to further water conservation through the use of recycled water.

**USS-4.5** Use the County Guidelines for Determining Significance for Groundwater Resources, Surface Water Quality, and Hydrology to identify and minimize adverse environmental effects on groundwater resources.

**USS-4.6** Establish a water credits program between the County and the Borrego Water District to encourage an equitable allocation of water resources.

**USS-4.7** Coordinate with the San Diego County Water Authority and other water agencies to coordinate land use planning with water supply planning and support continued implementation and enhancement of water conservation programs.

### *2.16.6.5 Issue 5: Adequate Wastewater Facilities*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts related to adequate wastewater facilities to below a significant level.

**General Plan Update Policies**

**Policy LU-4.3: Relationship of Plans in Adjoining Jurisdictions.** Consider the plans and projects of overlapping or neighboring agencies in the planning of unincorporated lands, and invite comments and coordination when appropriate.

**Mitigation Measures**

The mitigation measures listed under Section 2.16.6.1 above would mitigate impacts to adequate wastewater facilities and are incorporated here by reference.

### *2.16.6.6 Issue 6: Sufficient Landfill Capacity*

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impact associated with sufficient landfill capacity. However, even with mitigation measures in place,

the proposed General Plan Update would allow for the development of land uses that would increase the demand for landfill capacity, thereby resulting in potentially inadequate landfill capacity. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with sufficient landfill capacity; however, not to below a significant level. Additional mitigation measures have been identified that would reduce the potentially significant impact to landfill capacity. However, the County has determined that their implementation would be infeasible. A discussion of infeasible mitigation measures, as well as General Plan policies and feasible mitigation measures is provided below.

**Infeasible Mitigation Measures**

The following measures (and variations of these measures) were considered in attempting to reduce impacts associated with sufficient landfill capacity to below a level of significance. However, the County has determined these measures to be infeasible for the reasons listed below. Therefore, these mitigation measures would not be implemented.

- Require all proposed development to obtain written verification of sufficient landfill capacity for the next 20 years. This mitigation measure would prove infeasible because existing landfill facilities are not projected to have sufficient capacity to serve future demand. Therefore, this measure would impede the County's ability to implement the General Plan Update because it would prohibit future development in areas identified for increased growth in the General Plan Update. This mitigation measure would conflict with the project objective to support a reasonable share of projected regional population growth because new development would be unable to obtain verification of adequate landfill capacity for the next 20 year and, therefore, future growth in the unincorporated County would be prohibited. For the reasons listed above, this mitigation measure would not be implemented.

- Require any proposed project that is expected to result in an increase in solid waste disposal demand to construct a solid waste disposal facility, concurrent with development, to meet the needs of the project. This mitigation measure would prove infeasible because it places the burden of development of new solid waste disposal facilities on the developer, would require permits from local and State agencies, and would have the potential result in environmental consequences from creating multiple solid waste facilities throughout the unincorporated County. This mitigation measure would result in significant environmental impacts from the construction of multiple solid waste facilities throughout various areas of the unincorporated County. Implementing multiple solid waste disposal sites would increase environmental degradation throughout the unincorporated County, which would contradict the proposed project's objective to promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance.

Because the measures listed above have been found to be infeasible by the County and would not be implemented, impacts would be significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with sufficient landfill capacity as compared to the proposed project.

**General Plan Update Policies**

The following policies would reduce impacts associated with sufficient landfill capacity, although not to below a significant level.

**Policy LU-12.1: Concurrency of Infrastructure and Services with Development.** Require the provision of infrastructure, facilities, and services needed by new development prior to that development, either directly or through fees. Where appropriate, the construction of infrastructure and facilities may be phased to coincide with project phasing. In addition to utilities, roads, bicycle and pedestrian facilities, and education, police, and fire services, transit-oriented infrastructure, such as bus stops, bus benches, turnouts, etc, should be provided, where appropriate.

**Policy LU-12.2: Maintenance of Adequate Services.** Require development to mitigate significant impacts to existing service levels of public facilities or services for existing residents and businesses. Provide improvements for Mobility Element roads in accordance with the Mobility Element Network Appendix matrices, which may result in ultimate build-out conditions that achieve an improved LOS but do not achieve a LOS of D or better.

**Policy LU-16.1: Location of Waste Management Facilities.** Site new solid waste management facilities identified in the San Diego County Integrated Waste Management Plan in a manner that minimizes environmental impacts, prevents groundwater degradation, and complies with applicable local land use policies.

**Policy LU-16.2: Integrity of Waste Management Facilities.** Avoid encroachment of incompatible land uses upon solid waste facilities in order to minimize or avoid potential conflicts.

**Policy LU-16.3: New Waste Management Facilities.** Encourage the establishment of additional recycling and resource recovery facilities in areas with Industrial land use designations or other appropriate areas based on the type of recycling.

**Policy COS-17.1: Reduction of Solid Waste Materials.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.

**Policy COS-17.2: Construction and Demolition Waste.** Require recycling, reduction and reuse of construction and demolition debris.

**Policy COS-17.3: Landfill Waste Management.** Require landfills to use waste management and disposal techniques and practices to meet all applicable environmental standards.

**Policy COS-17.4: Composting.** Encourage composting throughout the County and minimize the amount of organic materials disposed at landfills.

**Policy COS-17.6: Recycling Containers.** Require that all new land development projects include space for recycling containers.

**Policy COS-17.7: Material Recovery Program.** Improve the County's rate of recycling by expanding solid waste recycling programs for residential and non-residential uses.

**Policy COS-17.8: Education.** Continue programs to educate industry and the public regarding the need and methods for waste reduction, recycling, and reuse.

**Mitigation Measures**

The following mitigation measures would reduce impacts associated with sufficient landfill capacity, although not to below a significant level.

**USS-6.1** Participate in interjurisdictional reviews to gather information on and provide comments on plans of incorporated jurisdictions and public agencies in the region. Also work with jurisdictions in the County to facilitate regulations to site recycling facilities.

**USS-6.2** Review all plans for large scale projects and planned developments to insure there is space allocation for on-site storage to separate recyclable solid waste.

**USS-6.3** Promote and enforce the Management of Solid Waste Ordinance requiring mandatory recycling. Evaluate the Zoning Ordinance and other County ordinances, codes and policies to allow the development of the most environmentally sound infrastructure for solid waste facilities including recycling, reuse and composting businesses. Also implement the Zoning Ordinance requirements for a Major Use Permit for new landfills to ensure the facilities are sited in accordance with the San Diego County IWMP.

**USS-6.4** Promote the use of Board Policy B-67 requiring the County to purchase products containing recycled and recyclable materials.

**USS-6.5** Regulate refuse hauling companies through County Franchise Hauler Agreement permits. Coordinate with solid waste facility operators to extend and/or expand existing landfill capacity by encouraging on-site materials diversion options. Also develop incentives to encourage pilot projects with unincorporated area landfills to use anaerobic digesters to process organic materials currently being landfilled.

**USS-6.6** Permit and regulate solid waste operators and closed solid waste disposal sites to ensure compliance with California Code of Regulations and Titles 14 and 27.

**USS-6.7** Maintain and monitor inactive solid waste disposal sites to ensure compliance with all applicable environmental regulations. Also establish additional compatible uses for inactive solid waste sites, where possible, that generate cost-saving revenue and provide desirable community resources.

**USS-6.8** Conduct recycling and composting public education programs for residents, schools, and businesses. Develop programs to assist farmers, residents, and businesses to divert organic materials. Also encourage the County and private contractors and developers to practice deconstruction and recycling of construction, demolition and land clearing debris.

## *2.16.6.7 Issue 7: Solid Waste Regulations*

As discussed in Section 2.16.3.7 above, impacts associated with federal, State and local solid waste regulations would be less than significant. Therefore, mitigation is not required.

### *2.16.6.8 Issue 8: Energy*

The following General Plan Update policies and mitigation measures would mitigate direct and cumulative impacts related to energy facilities to below a significant level.

**General Plan Update Policies**

**Policy COS-14.7: Alternative Energy Sources for Development Projects.** Encourage development projects that use energy recovery, photovoltaic, and wind energy.

**Policy COS-15.1: Design and Construction of New Buildings.** Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

**Policy COS-15.2: Upgrade of Existing Buildings.** Promote and, as appropriate, develop standards for the retrofit of existing buildings to incorporate architectural features, heating and cooling, water, energy, and other design elements that improve their environmental sustainability and reduce GHG.

**Policy COS-15.3: Green Building Programs.** Require all new County facilities and the renovation and expansion of existing County buildings to meet identified "green building" programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

**Policy COS-15.4: Title 24 Energy Standards.** Require new development to reduce the energy impacts from new buildings by applying in accordance with or exceeding Title 24 energy standards as required by law.

**Policy COS-15.5: Energy Efficiency Audits.** Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.

**Mitigation Measures**

**USS-8.1** Implement, and revise as necessary, the County Green Building Program through incentives for development that is energy efficient and conserves resources.

**USS-8.2** Revise Board Policy F-50 to strengthen the County's commitment and requirement to implement resource-efficient design and operations for County funded renovation and new building projects. Also revise Board Policy G-15 to require County facilities to comply with Leadership in Energy and Environmental Design (LEED) standards or other Green Building rating systems.

**USS-8.3** Revise Board Policy G-16 to require the County to:

- Adhere to the same or higher standards it would require from the private sector when locating and designing facilities concerning environmental issues and sustainability
- Require government contractors to use low emission construction vehicles and equipment.

**USS-8.4** Prepare a County Climate Change Action Plan with a baseline inventory of greenhouse gas emissions from all sources; greenhouse gas emissions reduction targets and deadlines, and enforceable greenhouse gas emissions reduction measures.

## 2.16.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.16.7.1 Issue 1: Wastewater Treatment Requirements*

The development of future land uses as designated in the proposed General Plan Update would result in the demand for wastewater treatment services to increase at a rate disproportionate to facility capabilities, which would result in a violation in wastewater treatment standards. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact to below a level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact associated with wastewater treatment requirements.

### *2.16.7.2 Issue 2: New Water and Wastewater Facilities*

The development of future land uses as designated in the proposed General Plan Update would increase the demand for water and wastewater services, thereby requiring the construction of new facilities. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact to below a level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact associated with new water and wastewater facilities.

### *2.16.7.3 Issue 3: Sufficient Stormwater Drainage Facilities*

The development of future land uses as designated under the proposed General Plan Update would require the construction of new stormwater facilities if existing facilities are not sized adequately to handle increased runoff flows. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact to below a

level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact associated with stormwater drainage facilities.

### *2.16.7.4 Issue 4: Adequate Water Supplies*

The development of future land uses as designated in the proposed General Plan Update could result in development with an inadequate water supply. Therefore, the proposed project would result in a potentially significant impact. The proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations such as the SDWA, California Water Code, California Drinking Water Standards, SB 610, SB 221, Urban Water Management Planning Act, Water Conservation Projects Act, and San Diego Groundwater Ordinance, would reduce impacts to water supplies, but not to below a level below significant. Impacts would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with water supplies.

### *2.16.7.5 Issue 5: Adequate Wastewater Facilities*

The development of future land uses as designated in the proposed General Plan Update would generate additional demand on the existing wastewater system that would result in inadequate capacity to serve the projected demand. Therefore, the proposed project would result in a potentially significant impact. However, implementation of the proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact to below a level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact associated with wastewater facilities.

### *2.16.7.6 Issue 6: Sufficient Landfill Capacity*

The development of future land uses as designated in the proposed General Plan Update has the potential to be served by a landfill with insufficient capacity to accommodate the solid waste disposal needs. Therefore, the proposed project would result in a potentially significant impact. The proposed General Plan Update policies, mitigation measures and required regulations would mitigate this impact, but not to a level below significance. Impacts would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with landfill capacity.

### *2.16.7.7 Issue 7: Solid Waste Regulations*

The development of future land uses as designated in the proposed General Plan Update would be required to comply with federal, State and local statues and regulations related to solid waste. Therefore, the proposed project would not result in a significant impact. Additionally, the proposed project would not contribute to a significantly cumulative impact associated with solid waste regulations.

### *2.16.7.8 Issue 8: Energy*

The development of future land uses as designated in the proposed General Plan Update would require energy facilities to be constructed or expanded, which would have the potential to result

in significant environmental effects. Therefore, the proposed project would result in a potentially significant direct impact. Additionally, the proposed project would result in a potentially significant cumulative impact. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to the California Energy Efficiency Standards for residential and non-residential buildings would reduce direct impacts related to the need for the expansion or construction of energy facilities to a level below significance. Additionally, with implementation of the proposed General Plan Update policies and mitigation measures, the proposed project's cumulative contribution would be reduced to a less than significant level.

## Table 2.16-1. SDCWA Member Water Districts Existing and Future Housing and Population

| SDCWA Member Water Districts | Housing Units (2004) | Population (2004) | Housing Units – (Proposed Project) | Population (Proposed Project) | Growth in Housing (percent) | Growth in Population (percent) |
|---|---|---|---|---|---|---|
| 1. Fallbrook Public Utility District | 10,647 | 30,833 | 14,248 | 41,338 | 34 | 34 |
| 2. Helix Water District | 28,075 | 83,033 | 31,097 | 91,954 | 11 | 11 |
| 3. Lakeside Water District | 4,730 | 13,544 | 5,111 | 14,638 | 8 | 8 |
| 4. Olivenhain Municipal Water District | 5,273 | 13,646 | 6,005 | 15,541 | 14 | 14 |
| 5. Otay Water District | 20,783 | 62,687 | 23,267 | 70,187 | 12 | 12 |
| 6. Padre Dam Municipal Water District | 22,270 | 63,562 | 28,407 | 80,755 | 28 | 27 |
| 7. Rainbow Municipal Water District | 7,106 | 20,083 | 11,803 | 33,265 | 66 | 66 |
| 8. Ramona Municipal Water District | 8,337 | 25,592 | 14,174 | 43,510 | 41 | 41 |
| 9. Rincon del Diablo Municipal Water District | 4,199 | 12,596 | 8,403 | 25,250 | 100 | 100 |
| 10. Santa Fe Irrigation District | 2,600 | 6,729 | 2,923 | 7,563 | 12 | 12 |
| 11. Sweetwater Authority/South Bay Irrigation District | 5,710 | 17,714 | 6,551 | 20,331 | 15 | 15 |
| 12. Vallecitos Water District | 3,731 | 11,083 | 5,648 | 16,660 | 51 | 50 |
| 13. Valley Center Municipal Water District | 8,398 | 23,352 | 16,457 | 46,219 | 96 | 98 |
| 14. Vista Irrigation District | 5,894 | 17,140 | 11,142 | 32,873 | 89 | 92 |
| 15. Yuima Municipal Water District | 719 | 2,150 | 2,037 | 6,090 | 183 | 183 |

Source: DPLU GIS 2008

## Table 2.16-2. Groundwater Dependent Water Districts Existing and Future Housing and Population

| Groundwater Dependant Districts | Housing Units (2004) | Population (2004) | Housing Units (Proposed Project) | Population (Proposed Project) | Growth in Housing (percent) | Growth in Population (percent) |
|---|---|---|---|---|---|---|
| 1. Borrego Springs Park Community Service District | 39 | 60 | 273 | 421 | 600 | 602 |
| 2. Borrego Water District | 989 | 1,526 | 8,624 | 13,308 | 772 | 772 |
| 3. Campo Water and Sewer Maintenance District | 9 | 22 | 65 | 160 | 622 | 627 |
| 4. Canebrake County Water District | 2 | 3 | 10 | 16 | 400 | 433 |
| 5. Cuyamaca Water District | 5 | 8 | 13 | 22 | 160 | 175 |
| 6. Descanso Community Services District | 20 | 46 | 86 | 199 | 330 | 333 |
| 7. Jacumba Community Services District | 11 | 25 | 32 | 72 | 191 | 188 |
| 8. Julian Community Services District | 20 | 41 | 34 | 69 | 70 | 68 |
| 9. Majestic Pines Community Services District | 67 | 138 | 129 | 266 | 93 | 93 |
| 10. Mootamai Municipal Water District | 30 | 90 | 47 | 141 | 56 | 56 |
| 11. Pauma Municipal Water District | 175 | 523 | 566 | 1,689 | 223 | 223 |
| 12. Questhaven Municipal Water District | 26 | 68 | 56 | 146 | 115 | 115 |
| 13. San Luis Rey Municipal Water District | 317 | 920 | 1,019 | 2,953 | 221 | 221 |
| 14. Wynola Water District | 18 | 36 | 38 | 78 | 111 | 117 |

Source: DPLU GIS 2008

## Table 2.16-3. Historical Borrego Valley Aquifer Water Demand

| Year | Municipal (AFY) | Agricultural (AFY) | Golf Course and Landscape (AFY) | Total (AFY) |
|---|---|---|---|---|
| 1950 | 170 | 11,435 | 190 | 11,795 |
| 1958 | 225 | 22,455 | 790 | 23,470 |
| 1962 | 265 | 13,455 | 1,725 | 15,820 |
| 1968 | 475 | 7,260 | 1,720 | 9,455 |
| 1972 | 530 | 5,320 | 2,270 | 8,120 |
| 1978 | 600 | 5,705 | 2,050 | 8,355 |
| 1980 | 430 | 10,600 | 2,100 | 13,130 |
| 1999 | 2,272 | 15,590 | 4,435 | 22,297 |
| 2007 | 1,920 | 14,650 | 5,240 | 21,810 |

AFY = Acre-feet per Year
Source: DPLU 2009f

## Table 2.16-4. Wastewater Districts Existing and Future Housing and Population

| Wastewater Districts | Housing Units (2004) | Population (2004) | Housing Units (Proposed Project) | Population (Proposed Project) | Growth in Housing (percent) | Growth in Population (percent) |
|---|---|---|---|---|---|---|
| Alpine Sanitation District | 214 | 587 | 787 | 2,166 | 268 | 269 |
| East Otay Mesa Sewer Maintenance District | 1 | 3 | 1 | 3 | 0 | 0 |
| Lakeside Sanitation District | 10,324 | 29,563 | 12,419 | 35,565 | 20 | 20 |
| Otay Water District | 70,362 | 208,820 | 79,539 | 236,309 | 13 | 13 |
| Padre Dam Municipal Water District | 22,270 | 63,562 | 28,407 | 80,755 | 28 | 27 |
| Spring Valley Sanitation District | 26,067 | 80,354 | 28,199 | 86,999 | 8 | 8 |
| Winter Gardens Sewer Maintenance District | 3,835 | 5,481 | 4,019 | 6,007 | 5 | 10 |
| Borrego Springs Park Community Services District | 39 | 60 | 273 | 421 | 600 | 602 |
| Borrego Water District | 989 | 1,526 | 8,624 | 13,308 | 772 | 772 |
| Buena Sanitation District | 3,302 | 9,932 | 6,364 | 19,167 | 93 | 93 |
| Campo Water and Sewer Maintenance District | 9 | 22 | 65 | 160 | 622 | 627 |
| Fairbanks Ranch Community Services District | 476 | 1,232 | 476 | 1,232 | 0 | 0 |
| Fallbrook Public Utility District | 10,647 | 30,833 | 14,248 | 41,338 | 34 | 34 |
| Julian Sanitation District | 9 | 18 | 16 | 33 | 78 | 83 |
| Olivenhain Municipal Water District | 5,273 | 13,646 | 6,005 | 15,541 | 14 | 14 |
| Pauma Valley Community Services District | 251 | 751 | 1,023 | 3,331 | 308 | 344 |
| Pine Valley Sanitation District | 2 | 5 | 2 | 5 | 0 | 0 |
| Rainbow Municipal Water District | 7,768 | 21,947 | 13,052 | 36,759 | 68 | 67 |
| Ramona Municipal Water District | 8,337 | 25,592 | 14,174 | 43,510 | 41 | 41 |
| Rancho Santa Fe Community Services District | 2,578 | 6,666 | 3,083 | 7,972 | 20 | 20 |
| Vallecitos Water District | 11,125 | 33,409 | 14,812 | 44,327 | 33 | 33 |
| Valley Center Municipal Water District | 8,398 | 23,352 | 16,457 | 46,219 | 96 | 98 |
| Whispering Palms Community Services District | 1,284 | 3,323 | 1,366 | 3,535 | 6 | 6 |

Note: Cardiff Sanitary Division – City of Encinitas is not expected to experience growth under implementation of the General Plan Update and is therefore not included in this table.
Source: DPLU GIS 2008

## Table 2.16-5. San Diego County Landfill Capacity Information

| Landfill | Owner | Operator | Current Remaining Capacity (cubic yards) | Current Remaining Capacity (April 2007) (tons) |
|---|---|---|---|---|
| Borrego | Allied Waste Industries, Inc. | Borrego Landfill, Inc. | 427,775 | 238,271 |
| Miramar | U.S. Navy | City of San Diego | 87,760,000[(1)] | 44,574,720[(1)] |
| Otay | Allied Waste Industries, Inc. | Otay Landfill, Inc. | 31,665,198 | 31,813,474 |
| Ramona | Allied Waste Industries, Inc. | Ramona Landfill, Inc. | 389,500 | 241,490 |
| Sycamore | Allied Waste Industries, Inc. | Sycamore Landfill, Inc. | 44,832,302[(1)] | 44,114,985[(1)] |
| Las Pulgas | U.S. Marine Corps | U.S. Marine Corps | 9,038,158[(1)] | 5,422,895[(1)] |
| San Onofre | U.S. Marine Corps | U.S. Marine Corps | 1,409,193[(1)] | 563,677[(1)] |
| Gregory Canyon | Gregory Canyon Limited | Gregory Canyon Limited | 49,500,000 | 33,400,000[(2)] |
| Campo | Campo Indian Reservation | Campo Indian Reservation | 48,000,000 | 28,000,000 |
| | | Total All Landfill | 273,022,126 | 188,369,512 |
| Las Pulgas, San Onofre San Onofre , Campo and Gregory Canyon[(1)] | | | -107,947,351 | -67,386,572 |
| | | **Remaining Capacity** | **166,074,775** | **120,982,940** |

Note: Las Pulgas and San Onofre landfills are owned and operated by the USMC, and are not available for public disposal. As of February 2009, the Gregory Canyon landfill and Campo landfill were in the permitting process and had not yet begun construction.

(1) Data provided by DPLU, April 2008

(2) Data provided by DPLU, May 2002

Source: DPLU 2007c; Final EIS Campo. U.S. Dept Interior 1992.

## Table 2.16-6. Solid Waste Transfer Stations Serving Unincorporated San Diego County

| Transfer Stations | Operator | Permitted Annual Throughput (tons) |
|---|---|---|
| Dalbergia | EDCO | 547,500 |
| Escondido Resource Recovery | Escondido Disposal | 902,500 |
| Fallbrook | EDCO | 180,500 |
| La Mesa | EDCO | 361,000 |
| Palomar/Carlsbad | Allied Waste Industries | 728,200 |
| Ramona | EDCO | 252,700 |
| Universal Refuse & Recycling – El Cajon | Waste Management | 722,000 |
| **Total** | | **3.7 million** |

Source: DPLU 2007c, updated data provided by DPLU, April 2008

## Table 2.16-7. Construction Demolition and Inert (CDI) Processing Facilities Serving Unincorporated San Diego County

| CDI Processing Facilities | Operator | Permitted Annual Throughput (tons) |
|---|---|---|
| SANCO Resource Recovery | SANCO Services | 365,000 |
| San Marcos CDI Operation | EDCO Waste & Recycling Services | 53,418 |
| **Total** | | **418,418** |

Source: DPLU 2008

## Table 2.16-8. Power Plants Located in San Diego County (as of 2006)

| Name | Peak (MWs) | Owner |
|---|---|---|
| **Combined Cycle Plants** | | |
| Palomar | 542.0 | SDG&E |
| **Combined Cycle Total** | **542** | |
| **Gas Turbines** | | |
| El Cajon / Calpeak | 42.0 | Cal PeaK |
| Border / Calpeak | 45.0 | Cal PeaK |
| Escondido / Calpeak | 45.0 | Cal PeaK |
| ELCAJNGT | 13.0 | Cabrillo II |
| ENCINAGT | 14.0 | Cabrillo II |
| KEARN2AB (Kearney GT2) | 14.0 | Cabrillo II |
| KEARN2AB (Kearney GT2) | 14.0 | Cabrillo II |
| KEARN2CD (Kearney GT2) | 14.0 | Cabrillo II |
| KEARN2CD (Kearney GT2) | 13.0 | Cabrillo II |
| KEARN3AB (Kearney GT3) | 15.0 | Cabrillo II |
| KEARN3AB (Kearney GT3) | 14.0 | Cabrillo II |
| KEARN3CD (Kearney GT3) | 14.0 | Cabrillo II |
| KEARN3CD (Kearney GT3) | 14.0 | Cabrillo II |
| KEARNGT1 | 15.0 | Cabrillo II |
| Larkspur/Border | 49.0 | Diamond/Coral |
| Larkspur/Border | 49.0 | Diamond/Coral |
| MCC/Chula Vista | 42.0 | MCC |
| MCC/Escondido | 42.0 | MCC |
| Miramar | 46.0 | SDG&E |
| MIRAMARGT (Miramar GT1) | 17.0 | Cabrillo II |
| MIRAMARGT (Miramar GT1) | 16.0 | Cabrillo II |
| SOUTHBGT | 13.0 | Duke |
| **Gas Turbine Total** | **560.0 MW** | |

**Table 2.16-8 (Continued)**

| Name | Peak (MWs) | Owner |
|---|---|---|
| **Steam Units** | | |
| ENCINA 1 | 106.0 | Cabrillo 1 |
| ENCINA 2 | 103.0 | Cabrillo 1 |
| ENCINA 3 | 109.0 | Cabrillo 1 |
| ENCINA 4 | 299.0 | Cabrillo 1 |
| ENCINA 5 | 329.0 | Cabrillo 1 |
| SOUTHBY1 | 145.0 | Duke |
| SOUTHBY2 | 149.0 | Duke |
| SOUTHBY3 | 174.0 | Duke |
| SOUTHBY4 | 221.0 | Duke |
| **Steam Total** | **1635.0 MW** | |
| **Qualifying Facility/Cogeneration/ Renewables** | | |
| Naval Station | 47.0 | AEI |
| GOALLINE | 50.0 | PurEnergy |
| NOISLMTR (North Island) | 36.0 | AEI |
| POINTLMA (NTC/MCRD) | 25.0 | AEI |
| Landfill Gas (Otay) | 7.4 | Covanta |
| Landfill Gas (Sycamore) | 3.5 | Fortistar |
| Kelco Nutrasweet | 30.0 | |
| Kumeyaay | 51.0 | Kumeyaay Wind LLC |
| Misc. Renewable Resources | 28.5 | Misc. |
| Misc. PhotoVoltaic | 18.5 | Misc. |
| **QF/CoGen/Renewable Total** | **286.0 MW** | |
| **Grand Total** | **3023.0 MW** | |

(1) Duke is currently in the process of selling this plant to LS Power.
Source: DPLU 2007b

## Table 2.16-9. Summary of Potentially Significant Environmental Effects from Implementation of SDCWA Water Supply Projects

| |
|---|
| **Land Use** |
| *Land Use Impact 1:* Construction of proposed water supply facilities could cause conflicts with sensitive land uses. |
| *Land Use Impact 2:* Construction of proposed water supply facilities could result in the permanent displacement of existing, developing, or approved residential, commercial, industrial, extractive, governmental, or institutional land uses. |
| *Land Use Impact 3:* Construction of proposed water supply facilities could conflict with existing rights-of-ways and potentially disrupt utility service. |
| *Land Use Impact 4:* Elements of the proposed water supply facilities could be inconsistent with applicable land use plans, zoning ordinances, applicable HCPs or other land use planning objectives. |
| **Water Resources** |
| *Water Resources Impact 1:* Construction of the proposed water supply facilities could result in the degradation of downstream water quality. |
| *Water Resources Impact 2:* Discharge of effluent during operation of seawater desalination facilities may degrade near shore water quality. |
| **Biological Resources** |
| *Biological Resources Impact 1:* Construction of the proposed water supply facilities could result in loss or degradation of various habitats, direct loss of individual special-status species, filling of wetland areas, or increased disturbance or degradation of riparian and/or wildlife habitats. |
| *Biological Resources Impact 2:* Construction of the proposed water supply facilities could result in a possible disturbance to marine wildlife resources. |
| **Transportation and Traffic** |
| *Transportation and Traffic Impact 1:* Construction of the proposed water supply facilities could result in: 1) temporary increases in traffic levels (i.e., existing LOS to levels of D or lower); 2) increased traffic delays; or 3) increased traffic hazards. |
| *Transportation and Traffic Impact 2:* Construction activities could result in damage to local roadways. |
| **Noise** |
| *Noise Impact 1:* Noise generated during construction of proposed water supply facilities could result in temporary increases in noise levels at sensitive receptors. |
| *Noise Impact 2:* Blasting that may be necessary during construction could create a nuisance at local sensitive receptors. |
| *Noise Impact 3:* Noise generated during the operation of proposed water supply facilities could result in increased noise levels at sensitive receptors. |
| **Air Quality** |
| *Air Quality Impact 1:* Construction of the proposed water supply facilities could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); or could expose sensitive receptors to substantial pollutant concentrations. |
| *Air Quality Impact 2:* Operation of proposed water supply facilities could create objectionable odors affecting sensitive receptors. |
| **Utilities and Public Services** |
| *Utilities and Public Services Impact 1:* Construction of the proposed water supply facilities could require that existing utility infrastructure be relocated. Such relocations could result in long-term interruptions in service. |
| *Utilities and Public Services Impact 2:* Construction of the proposed water supply facilities could impact school service. |

**Table 2.16-9 (Continued)**

| |
|---|
| **Aesthetics** |
| *Aesthetics Impact 1:* Permanent structures associate with the proposed water supply facilities could have an adverse impact on scenic vistas or substantially degrade the existing visual character or quality of the project sites and their surroundings. |
| *Aesthetics Impact 2:* Proposed water supply facilities could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway corridor. |
| *Aesthetics Impact 3:* Proposed water supply facilities could create new sources of light or glare that would adversely affect day or nighttime views in surrounding areas. |
| *Aesthetics Impact 4:* Construction-related ground disturbance would result in short-term aesthetic effects. |
| **Geology and Soils** |
| *Geology and Soils Impact 1:* Seismic activity in the project area could expose humans to the risk of injury or death and could cause damage to proposed water supply facilities. |
| *Geology and Soils Impact 2:* Shrink and swell actions of expansive soils could damage proposed water supply facilities structures or foundations. |
| *Geology and Soils Impact 2:* Ground disturbance and vegetation removal during construction could result in increased soils erosion. |
| **Cultural Resources** |
| *Cultural Resources Impact 1:* Construction of the proposed water supply facilities could affect cultural resources. |
| **Public Safety and Hazardous Materials** |
| *Public Safety and Hazardous Materials Impact 1:* Activities associated with construction, operation and maintenance of the proposed water supply facilities could increase the potential for accidental wildfires. |
| *Public Safety and Hazardous Materials Impact 2:* Transportation, use, or disposal of hazardous materials during construction, operation and maintenance of the proposed water supply facilities or upsets and accidental releases of hazardous materials would create the potential for exposure of workers, the public, and the environment. |
| *Public Safety and Hazardous Materials Impact 3:* During construction of the proposed water supply facilities, workers and the public could be exposed to existing hazardous materials present at proposed water supply facilities sites, including the possible exposure to unexploded ordnance. |
| *Public Safety and Hazardous Materials Impact 4:* The presence of proposed water supply facilities at lakes, reservoirs, parks, and open space areas could create potential risks to recreational users of these areas due to construction activities, potential vehicle accidents involving Water Authority operation and maintenance vehicles, and unauthorized public access to Water Authority facilities. |
| **Paleontological Resources** |
| *Paleontological Resources Impact 1:* Construction of the proposed water supply facilities could directly or indirectly destroy unique paleontological resources or sites due to site grading or other ground disturbing activities. |
| **Agricultural Resources** |
| *Agricultural Resources Impact 1:* Conversion of Farmland of Local Importance and Grazing Land as shown on the maps prepared pursuant to the FPPA and the Farmland Mapping and Monitoring Program of the CDC to non-agricultural use could occur. |
| **Recreation** |
| *Recreation Impact 1:* The proposed water supply facilities could result in direct disturbance or displacement of established recreation facilities. |
| *Recreation Impact 2:* During construction of the proposed water supply facilities, construction activities could result in the disruption of existing recreational activities. |
| *Recreation Impact 3:* Operation of the proposed water supply facilities could result in the reduction of recreation quality. |

Source: SDCWA 2003

## Table 2.16-10. Groundwater Dependent Water Districts' Water Supply Sources

| Groundwater Dependant Water Districts | Watershed Name | Hydrologic Area Name | Hydrologic Subarea Name |
|---|---|---|---|
| Borrego Springs Park Community Service District | Anza Borrego | Borrego | Borrego Sink |
| Borrego Water District | Anza Borrego/ Clark | Borrego/ Clark | Borrego Sink/ Clark |
| Campo Water and Sewer Maintenance District | Tijuana | Campo | Canyon City |
| Canebrake County Water District | Anza Borrego | Agua Caliente | Carrizo |
| Cuyamaca Water District | San Diego | Boulder Creek | Cuyamaca/ Inaja |
| Descanso Community Services District | Sweetwater | Upper Sweetwater | Descanso |
| Jacumba Community Services District | Anza Borrego | Jacumba | Jacumba Valley |
| Julian Community Services District | San Diego/ Anza Borrego | Boulder Creek/Santa Ysabel/San Felipe | Spencer/Witch Creek/San Felipe |
| Majestic Pines Community Services District | San Diego/ Anza Borrego | Boulder Creek/ San Felipe | Spencer/San Felipe |
| Mootamai Municipal Water District | San Luis Rey | Monserate | Pauma |
| Pauma Municipal Water District | San Luis Rey | Monserate | Pauma/Pala |
| Questhaven Municipal Water District | Carlsbad | Escondido Creek | San Elijo/Escondido |
| San Luis Rey Municipal Water District | San Luis Rey | Lower San Luis/ Monserate | Bonsall/Pala |
| Wynola Water District | San Diego | Boulder Creek | Inaja |

Source: DPLU GIS 2008

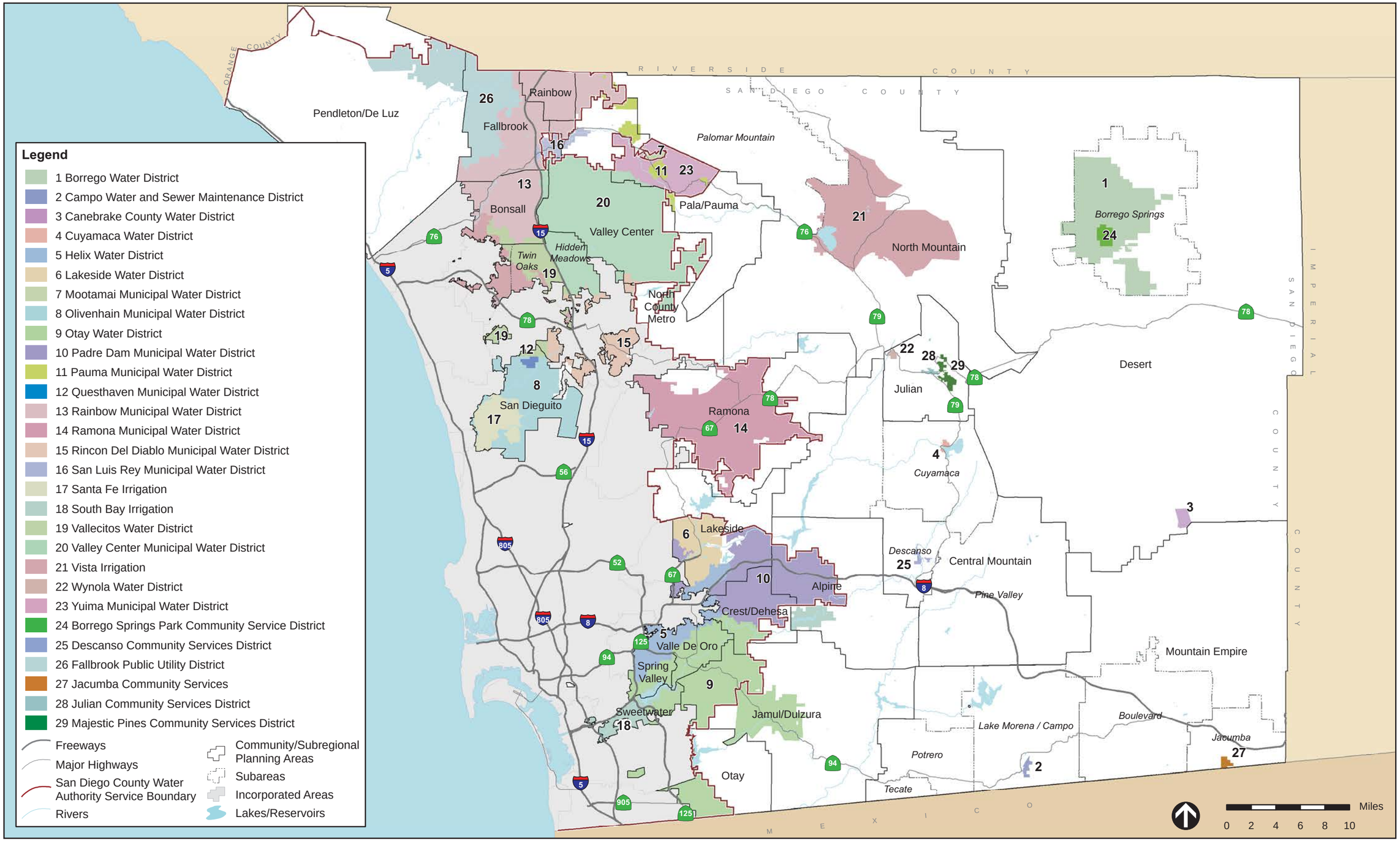
## Table 2.16-11. San Diego County Physical Landfill Capacity Projection (Millions of Tons)

| Year | In-County Landfill Rate of Disposal | Existing Physical Capacity | In-County Excess[1] | Sycamore Canyon Expansion[2] | | Proposed Gregory Canyon[2] | | In-County Excess[1] (Existing + Sycamore + Gregory) |
|---|---|---|---|---|---|---|---|---|
| | | | | Proposed Expansion Capacity In-County Excess[1] (Existing + Sycamore) | | Proposed Additional Capacity In-County Excess[1] (Existing + Gregory) | | |
| 1995 | 2.4 | | | | | | | |
| 1996 | 2.4 | | | | | | | |
| 1997 | 2.5 | | | | | | | |
| 1998 | 2.7 | | | | | | | |
| 1999 | 2.8 | | | | | | | |
| 2000 | 3.2 | | | | | | | |
| 2001 | 3.6 | | | | | | | |
| 2002 | 3.5 | 62.9 | 59.4 | | | | | 59.4 |
| 2003 | 3.6 | 59.4 | 55.8 | | | | | 55.8 |
| 2004 | 3.8 | 55.8 | 52.0 | | | | | 52.0 |
| 2005 | 3.8 | 52.0 | 48.2 | 116.6 | 164.9 | | | 164.9 |
| 2006 | 3.9 | 48.2 | 44.3 | | 160.9 | 33.4 | 77.7 | 194.3 |
| 2007 | 4.1 | 44.3 | 40.2 | | 156.8 | | 73.6 | 190.2 |
| 2008 | 4.3 | 40.2 | 35.9 | | 152.6 | | 69.3 | 186.0 |
| 2009 | 4.4 | 35.9 | 31.5 | | 148.2 | | 64.9 | 181.6 |
| 2010 | 4.6 | 31.5 | 27.0 | | 143.6 | | 60.4 | 177.0 |
| 2011 | 4.7 | 27.0 | 22.3 | | 138.9 | | 55.7 | 172.3 |
| 2012 | 4.9 | 22.3 | 17.4 | | 134.0 | | 50.8 | 167.4 |
| 2013 | 5.0 | 17.4 | 12.4 | | 129.0 | | 45.8 | 162.4 |
| 2014 | 5.2 | 12.4 | 7.2 | | 123.8 | | 40.6 | 157.2 |
| 2015 | 5.3 | 7.2 | 1.8 | | 118.5 | | 35.2 | 151.9 |
| 2016 | 5.5 | 1.8 | -3.6 | | 113.0 | | 29.8 | 146.4 |
| 2017 | 5.6 | -3.6 | -9.3 | | 107.4 | | 24.1 | 140.8 |
| 2018 | 5.8 | -9.3 | -15.1 | | 101.6 | | 18.3 | 135.0 |
| 2019 | 5.9 | -15.1 | -21.0 | | 95.6 | | 12.4 | 129.0 |
| 2020 | 6.1 | -21.0 | -27.1 | | 89.6 | | 6.3 | 123.0 |

[1] Excess is calculated: [Existing Physical Capacity + Proposed Capacity – Rate of Disposal]. The difference is defined as the additional tons per year that could be handled.

[2] The opening dates and annual permitted tonnages for these landfills are proposed at this time. The Local Enforcement Agency and local land use authority must approve both proposals. CIWMB votes to concur. Issues and concerns of the region and the adjoining jurisdictions will be addressed during the permitting processes.

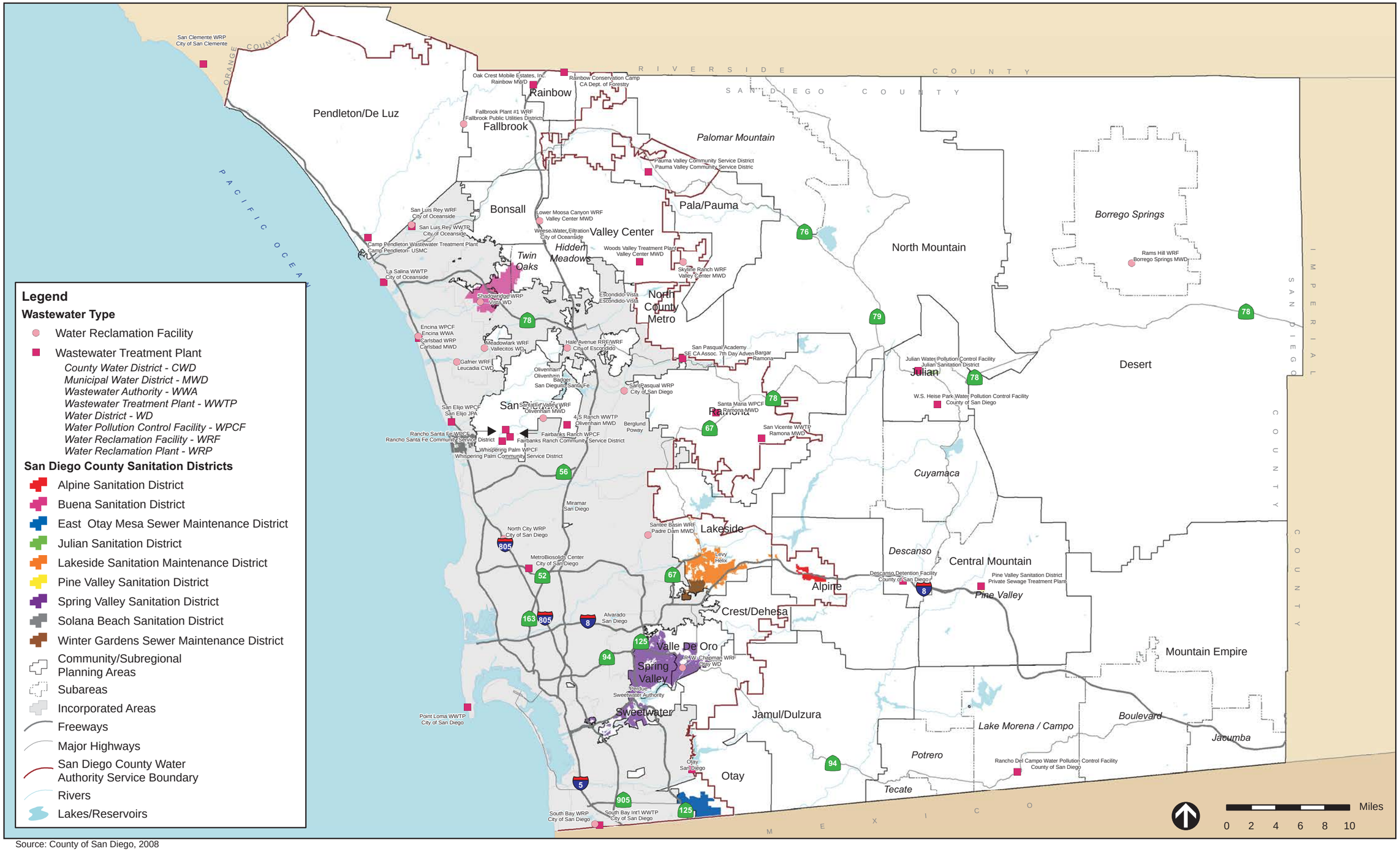
Source: DPW 2005




Source: County of San Diego, 2008

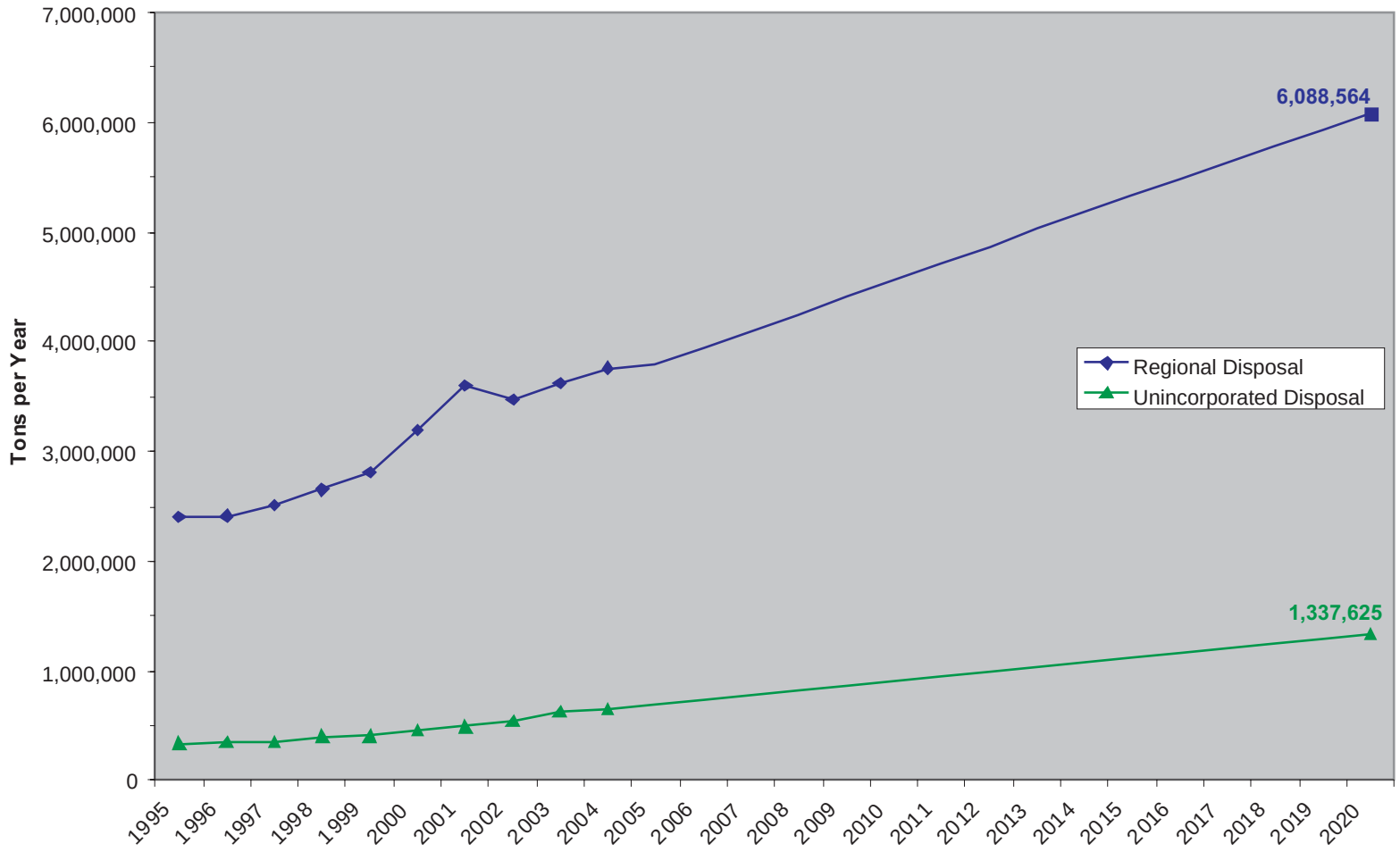
## WATER SERVING DISTRICT BOUNDARIES

## FIGURE 2.16-1




Source: County of San Diego, 2008

**WASTEWATER DISTRICT BOUNDARIES AND FACILITIES** **FIGURE 2.16-2**




**ANNUAL DISPOSAL PROJECTIONS FOR UNINCORPORATED COMMUNITIES AND THE SAN DIEGO COUNTY REGION (1995-2004 ACTUAL DATA)** **FIGURE 2.16-3**

# 2.17 Global Climate Change

This section provides background information on global climate change in addition to evaluating the unincorporated County of San Diego greenhouse gas (GHG) contributions and an evaluation of the General Plan Update's consistency with the goals and strategies of AB 32. Potential adverse impacts as a result of global climate change on the County are also addressed. Information contained in this section has been compiled from the San Diego Foundation Regional Focus 2050 Study (San Diego Foundation 2008), the San Diego County Greenhouse Gas Inventory (EPIC 2008), the County of San Diego Greenhouse Gas Emissions Inventory (DPLU 2009g), and other sources as cited throughout the document.

A summary of the global climate change impacts identified in Section 2.17.3 is provided below.

**Global Climate Change Summary of Impacts**

| Issue Number | Issue Topic | Project Direct Impact | Project Cumulative Impact | Impact After Mitigation |
|---|---|---|---|---|
| 1 | Compliance with AB 32 | Potentially Significant | Significant Cumulative Contribution | Less than Significant |
| 2 | Potential Effects of Global Climate Change on the Proposed General Plan Update | Potentially Significant | Significant Cumulative Contribution | Less than Significant |

## 2.17.1 Existing Conditions

### *2.17.1.1 Climate Change Overview*

Global climate change refers to any substantial change in measures of climate (such as temperature, precipitation, or wind) lasting for decades or longer. Global warming is an average increase in the temperature of the atmosphere, which can contribute to changes in global climate patterns. Some GHG, such as water vapor, occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted through human activities.

According to the EPA, the Earth's climate has changed many times during the planet's history, with events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the Sun have affected the Earth's climate. Beginning late in the 18th century, human activities associated with the Industrial Revolution have also changed the composition of the atmosphere and therefore very likely are influencing the Earth's climate. For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation has caused the concentrations of heat-trapping GHG to increase substantially in the atmosphere.

The accumulation of GHG in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effects of GHG, the earth's temperature would be about 34 degrees Celsius (°C) cooler. However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The Global Carbon Project recently released an update of the global carbon budget. The atmospheric carbon dioxide ($CO_2$) concentration in 2007 was 383 parts per million (ppm), 37 percent above the concentration at the start of the Industrial Revolution (about 280 ppm in 1750). The 2007 concentration was the highest known concentration during the last 650,000 years and probably during the last 20 million years. Results show that anthropogenic $CO_2$ emissions have been growing about four times faster since 2000 than the previous decade. The annual mean growth rate of atmospheric $CO_2$ was 2.2 ppm per year in 2007, up from 1.8 ppm in 2006.

### *2.17.1.2 Greenhouse Gases*

GHG are gases that trap heat in the atmosphere, analogous to the way a greenhouse retains heat. Common GHG include water vapor, $CO_2$, methane ($CH_4$), nitrous oxides ($N_2O$), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ($SF_6$), ozone ($O_3$), and aerosols. Global atmospheric concentrations of $CO_2$, $CH_4$ and $N_2O$ have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years.

Individual GHGs have varying potential to contribute to global warming (GWP) and atmospheric lifetimes (see Table 2.17-1). The $CO_2$ equivalent ($CO_2e$) is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent measure. The reference gas for GWP is $CO_2$; therefore, $CO_2$ has a GWP of one. By comparison, the GWP of $CH_4$ is 21. This means that $CH_4$ has a greater global warming effect than $CO_2$ on a molecule per molecule basis. One million metric tons of $CO_2$ equivalent (MMT $CO_2e$) is the mass emissions of an individual GHG multiplied by its GWP.

State law defines GHGs to include the following compounds: $CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$ (Health and Safety Code, Section 38505(g).) Descriptions of these compounds and their sources are provided below.

**Carbon Dioxide (CO2)**

$CO_2$ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions such as through the manufacturing of cement. The largest source of $CO_2$ emissions globally is the combustion of fossil fuels such as coal, oil and gas in power plants, automobiles, industrial facilities and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production and the use of petroleum-based products can also lead to $CO_2$ emissions. Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle. Natural sources of $CO_2$ occur within the carbon cycle where billions of tons of atmospheric $CO_2$ are removed from the atmosphere by oceans and growing plants, also known as 'sinks,' and are emitted back into the atmosphere annually through natural processes also known as 'sources.' When in balance, the total carbon dioxide emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, such as the burning of oil, coal and gas or deforestation, have increased $CO_2$ concentrations in the atmosphere. In 2005, global atmospheric concentrations of $CO_2$ were 35 percent higher than they were before the Industrial Revolution (EPA 2008b).

**Methane ($CH_4$)**

$CH_4$ is emitted from a variety of both human-related and natural sources. Human-related activities include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. $CH_4$ is emitted during the production and transport of coal, natural gas, and oil. $CH_4$ emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global $CH_4$ emissions are related to human-related activities. Natural sources of $CH_4$ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. $CH_4$ emission levels from a source can vary significantly from one country or region to another, depending on many factors such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes that cause $CH_4$ emissions in both human-related and natural sources. Also, the implementation of technologies to capture and utilize $CH_4$ from sources such as landfills, coal mines, and manure management systems affects the emission levels from these sources (EPA 2008b).

**Nitrous Oxide ($N_2O$)**

$N_2O$ is produced by both natural and human-related sources. $N_2O$ is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. Primary human-related sources of $N_2O$ are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. $N_2O$ is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. $N_2O$ emission levels from a source can vary significantly from one country or region to another, depending on many factors such as industrial and agricultural production characteristics, combustion technologies, waste management practices, and climate. For example, heavy utilization of synthetic nitrogen fertilizers in crop production typically results in significantly more $N_2O$ emissions from agricultural soils than that occurring from less intensive, low-tillage techniques. Also, the presence or absence of control devices on combustion sources, such as catalytic converters on automobiles, can have a significant affect on the level of $N_2O$ emissions from these types of sources (EPA 2008b).

**Fluorinated Gases**

HFCs, PFCs, and $SF_6$ are synthetic, powerful GHGs that are emitted from a variety of industrial processes, including aluminum production, semiconductor manufacturing, electric power transmission, magnesium production and processing, and the production of Chlorodifluoromethane (HCFC-22), commonly used in air conditioning applications. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances, such as CFCs, Hydrochlorofluorocarbons (HCFCs), and halons. These gases are typically emitted in smaller quantities, but have higher GWP than other GHGs (EPA 2008b).

### *2.17.1.3 GHG Emissions*

In an effort to evaluate and reduce the potential adverse impact of global climate change, international, State and local organizations have conducted GHG inventories to estimate their

levels of GHG emissions and removals. The following summarizes the results of these global, national, State and countywide GHG inventories.

## Global

Worldwide anthropogenic emissions of GHG in 2006 were approximately 49,000 million metric tons (MMT) of $CO_2e$, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (i.e., deforestation, biomass decay) (IPCC 2007). $CO_2$ emissions from fossil fuel use accounts for 56.6 percent of the total emissions of 49,000 MMT $CO_2e$ (includes land use changes) and all $CO_2$ emissions are 76.7 percent of the total. $CH_4$ emissions account for 14.3 percent and $N_2O$ emissions for 7.9 percent of GHG (IPCC 2007).

## United States (U.S.)

The EPA publication, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006,* provides a comprehensive emissions inventory of the nation's primary anthropogenic sources and sinks of GHG. In 2006, total U.S. GHG emissions were 7,054.2 teragrams (Tg) or MMT $CO_2e$. Overall, total U.S. emissions have risen by 14.7 percent from 1990 to 2006, while the U.S. gross domestic product has increased by 59 percent over the same period. Emissions fell from 2005 to 2006, decreasing by 1.1 percent (75.7 MMT $CO_2e$). The publication indicated that the following factors were primary contributors to this decrease: 1) compared to 2005, 2006 had warmer conditions, which decreased consumption of heating fuels, as well as cooler summer conditions, which reduced demand for electricity, 2) restraint on fuel consumption caused by rising fuel prices, primarily in the transportation sector, and 3) increased use of natural gas and renewables in the electric power sector (EPA 2008c).

## California

The State of California is a substantial contributor of GHG as it is the second largest contributor in the U.S. and the 16th largest in the world. According to the California Air Resources Board (CARB), California generated 484 MMT $CO_2e$ in 2004. Table 2.17-2 provides CARB data on California GHG emissions by sector in 2004. GHG emissions in California are mainly associated with fossil fuel consumption in the transportation sector (38 percent) with the industrial sector as the second-largest source (20 percent). Electricity production, from both in-state and out-of-state sources, agriculture, forestry, commercial, and residential activities comprise the balance of California's GHG emissions. Emissions of GHG were offset slightly in 2004 by the sequestration (intake) of carbon within forests, reducing the overall emissions by 4.7 MMT CO2e, resulting in net emissions of about 480 MMT CO2e.

## San Diego County

In addition to the State of California GHG Inventory, a more specific regional GHG inventory was prepared by the University of San Diego School of Law Energy Policy Initiative Center (EPIC) in 2008. This San Diego County GHG Inventory is a detailed inventory that takes into account the unique characteristics of the region in calculating emissions. A summary of the inventory results, by category and percent contribution for the year 2006, is provided in Table 2.17-3.

Table 2.17-3 shows that in 2006, a total of 34.4 MMT $CO_2e$ was generated by the County of San Diego. This total includes both the incorporated and unincorporated areas. Not surprisingly, the

largest contributor of GHG was from the on-road transportation category, which comprised 46 percent (16 MMT $CO_2e$) of the total amount. The second highest contributor was the electricity category, which contributed 9 MMT $CO_2e$, or 25 percent of the total. Together the on-road transportation and electricity category comprised 71 percent of the total GHG emissions for the County. The remaining amount was contributed by natural gas consumption, civil aviation, industrial processes, off-road transportation, waste, agriculture, rail, water-borne navigation, and other fuels.

Emissions associated with the County's operations and its jurisdictional land use area (the unincorporated area) were calculated by the County in an inventory prepared for this EIR (DPLU 2009g). The inventory is discussed in greater detail in Section 2.17.3.1 below and is included in Appendix K of the EIR. The County's inventory includes 2006 emissions, which can be considered a subset of the 2006 emissions in the EPIC inventory. Tables 2.17-4, 2.17-6, and 2.17-7 include the 2006 County emissions. A total of 5.6 MMT $CO_2e$ was generated by the unincorporated communities and 0.16 MMT $CO_2e$ from County government operations. These emissions account for about 17 percent of the total emissions from the region. Similar to the region, the two highest contributors for the unincorporated communities were the on-road transportation and electric categories with 52 and 25 percent, respectively. For the government operation, employee commute, buildings, and vehicle fleet, comprised the large majority of the contributions with 45, 34, and 19 percent of the emissions, respectively.

### *2.17.1.4 Potential Effects of Global Climate Change*

Many elements of human society and the environment are sensitive to climate variability and change. Human health, agriculture, natural ecosystems, coastal areas, and heating and cooling requirements are examples of climate-sensitive systems. Rising average temperatures are already affecting the environment. Some observed changes include shrinking of glaciers, thawing of permafrost, later seasonal freezing and earlier break-up of ice on rivers and lakes, lengthening of growing seasons, shifts in plant and animal ranges and earlier flowering of trees. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide, methane, nitrous oxide, and other GHG (or heat-trapping) to the atmosphere.

The extent of climate change effects, and whether these effects prove harmful or beneficial, will vary by region, over time, and with the ability of different societal and environmental systems to adapt to or cope with the change (EPA 2008b). The IPCC estimates that for increases in global mean temperature of less than 1-3 °C (1.8-5.4 degrees Fahrenheit (°F)) above 1990 levels, some places and sectors will see beneficial impacts while others will experience harmful ones. However, some low-latitude and polar regions are expected to experience adverse effects even for small increases in temperature. For increases in temperature greater than 2-3 °C (3.6-5.4 °C), the IPCC says it is very likely that all regions will experience either declines in beneficial effects or increases in adverse effects. "Taken as a whole," the IPCC concludes, "the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time" (EPA 2008b).

## 2.17.2 Regulatory Framework

### *2.17.2.1 International*

**United Nations Framework Convention on Climate Change (UNFCCC)**

On March 21, 1994, the U.S. joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and

adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

**Intergovernmental Panel of Climate Change (IPCC)**

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

**Kyoto Protocol**

The treaty known as the Kyoto Protocol was created as a result of UNFCC efforts. Countries signed the treaty to demonstrate their commitment to reducing GHG emissions or to engaging in emissions trading. More than 160 countries representing 55 percent of global emissions (not including the U.S.) are currently participating in the protocol. In 1998, U.S. Vice President, Al Gore, symbolically signed the Protocol; however, in order for the Protocol to be formally ratified the U.S. Congress must adopt it, which has not yet occurred.

### *2.17.2.2 Federal*

**U.S. Environmental Protection Agency (EPA)**

The EPA is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The EPA also has jurisdiction over emission sources outside State waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

The EPA currently does not regulate GHG emissions from motor vehicles. In a recent court case, *Massachusetts v. EPA* (Supreme Court Case 05-1120) it was argued before the U.S. Supreme Court on November 29, 2006, in which it was petitioned that EPA regulate four GHG, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was rendered

on April 2, 2007, in which the Court held that petitioners have standing to challenge the EPA and that the EPA has statutory authority to regulate emission of GHG from motor vehicles. EPA is now in the midst of the rulemaking process to respond to this ruling. On May 19, 2009, President Obama proposed a new national fuel economy program which adopts uniform federal standards to regulate both fuel economy and GHG emissions while preserving the legal authorities of DOT, EPA and California. Development of this program is underway.

**Federal Clean Air Act (CAA)**

The Federal CAA, as amended, establishes air quality standards for several pollutants. These standards are divided into primary standards and secondary standards. Primary standards are designed to protect public health, and secondary standards are intended to protect public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. The CAA requires that regional plans be prepared for non-attainment areas illustrating how the federal air quality standards could be met. The CARB approved the most recent revision of the SIP in 1994, and submitted it to the EPA. The SIP, approved by the EPA in 1996, consists of a list of ROG and NOx control measures for demonstrating future attainment of ozone standards. The steps to achieve attainment will continue to require significant emissions reductions in both stationary and mobile sources.

**Lieberman-Warner Climate Security Act**

The Lieberman-Warner Climate Security Act (S. 2191) is the first GHG cap-and-trade legislation approved by a full Congressional committee on December 5, 2007. The bill, as passed by the Senate Environment and Public Works Committee in an 11-8 vote, would establish a cap-and-trade program within the U.S. requiring a 70 percent reduction in GHG emissions from covered sources, which represent over 80 percent of total U.S. emissions. The bill as amended also includes complementary policies, such as a low carbon fuel standard and provisions aimed at enhancing energy efficiency. The cap on facilities producing HFCs would start in 2010 at 300 MMT $CO_2$e and decline to 90 MMT$CO_2$e by 2037, remaining at that level through 2050. Emissions from all other covered facilities would be capped at 5,775 MMT$CO_2$e in 2012, with this cap decreasing annually to 1,732 MMT$CO_2$e in 2050. The two caps combined would result in roughly a 19 percent reduction from 2005 levels in 2020 and a 70 percent reduction from 2005 levels by 2050. Taken together, the bill would reduce overall U.S. GHG emissions by 63 percent by 2050.[1]

### *2.17.2.3 State*

**California Air Resources Board (CARB)**

The CARB, a part of the California EPA (Cal EPA) is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular

[1] The Pew Center on Global Climate Change, U.S. Federal Action on Climate Change, <www.pewclimate.org/federal/analysis/congress/110/lieberman-warner>, accessed April 28, 2008.

emissions. The CARB also has primary responsibility for the development of California's State Implementation Plan, for which it works closely with the federal government and the local air districts.

## California Code of Regulations (CCR) Title 24

Although it was not originally intended to reduce GHGs, California Code of Regulations Title 24 Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The Energy Commission adopted 2008 Standards on April 23, 2008 and the Building Standards Commission approved them for publication on September 11, 2008. The 2008 updates will become effective on August 1, 2009. The Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards for the following reasons to: 1) provide California with an adequate, reasonably priced, and environmentally sound supply of energy; 2) respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020; 3) pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs; 4) act on the findings of California's Integrated Energy Policy Report (IEPR), which finds that Standards are the most cost effective means to achieve energy efficiency; expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand; and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions; 5) meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of State building codes; and 6) meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in GHG emissions. Therefore, increased energy efficiency results in decreased GHG emissions.

## California Assembly Bill (AB) 1493

California AB 1493 (Pavley) enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce climate change emissions from the light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.[2] However, the Federal EPA has not issued a waiver needed by the State in order to enforce this law. The waiver was denied in 2007 but is currently being reconsidered.

## Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. The California Climate Action Team's first Report (CAT Report) to the Governor in 2006, contains recommendations and strategies to help ensure

[2] California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*, December 2004, <www.arb.ca.gov/cc/factsheets/cc_newfs.pdf>, accessed April 28, 2008.

the targets in Executive Order S-3-05 are met.[3] A second report is currently in draft form and available on the California Climate Action Team website: http://www.climatechange.ca.gov/publications/cat/index.html.

**Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code Section 38500 et seq.)**

In September 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG in California. GHG as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Under AB 32, CARB has the primary responsibility for reducing GHG emissions and continues the CAT to coordinate Statewide efforts and promote strategies that can be undertaken by many other California agencies. AB 32 requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to State-wide levels in 1990 by 2020.

In general, AB 32 directs the CARB to do the following:

- Make publicly available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the Statewide GHG limit and the measures required to achieve compliance with the Statewide limit;
- Make publicly available a GHG inventory for the year 1990 and determine target levels for 2020;
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the Statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and non-monetary incentives that reduce GHG emissions from any sources or categories of sources that CARB finds necessary to achieve the Statewide GHG emissions limit; and
- Monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

Regarding the first two bullets, CARB has already made available a list of discrete early action GHG emission reduction measures. CARB has also published a staff report titled *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit* that determined the Statewide levels of GHG emissions in 1990. CARB identified 427 MMT $CO_2e$ as the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit. In December 2008, CARB adopted the AB 32 Scoping Plan which contains the main strategies California will use to reduce the GHGs that cause climate change. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program.

[3] State of California, Environmental Protection Agency, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*, March 2006.

AB 32 requires CARB to prepare a Scoping Plan to achieve reductions in GHG emissions in California. The AB 32 Scoping Plan contains the main strategies California will use to reduce the GHGs that contribute to climate change. The Scoping Plan includes a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. These measures have been introduced through four workshops that were held between November 30, 2007 and April 17, 2008. A draft Scoping Plan was released for public review and comment on June 26, 2008 followed by more workshops in July and August 2008. The Proposed Scoping Plan was released on October 15, 2008 and approved at the Board hearing on December 11, 2008. The plan utilizes SB 375 as the mechanism to achieve land use and vehicle mile travel reduction goals and proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures and a range of regulations to reduce emissions from trucks and from ships docked in California ports. There are also measures designed to safely reduce or recover a range of very potent GHG, such as $CH_4$ and $N_20$, which have a much higher GWP than $CO_2$ (see Table 2.17-1).

**Executive Order S-01-07**

Governor Arnold Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a State-wide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The process for meeting the 2020 target includes coordination between Cal EPA, the University of California, and the California Energy Commission to develop and propose a draft compliance schedule to meet the 2020 Target by June 30, 2007. The order also requires that a Low Carbon Fuel Standard for transportation be established for California.

**Senate Bill (SB) 97**

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs OPR to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" by July 1, 2009 and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines. The Natural Resources Agency will conduct formal rulemaking prior to certifying and adopting the amendments. In accordance with CEQA Guidelines Section 15007, this EIR will not need revisions as a result of the changes to the CEQA Guidelines if they go into effect after the EIR is sent out for public review.

**Senate Bill (SB) 375**

SB 375 provides a land use and transportation policy to meet the goals of AB 32. SB 375 builds on the existing regional transportation planning process (which is overseen by local elected officials with land use responsibilities) to connect the reduction of GHG emissions from cars and light trucks to land use and transportation policy. SB 375 requires the CARB to establish the GHG emission reduction targets for each region (as opposed to individual cities or households) and to review the region's determination that its plan achieves those targets. SB 375 has three goals to: 1) use the regional transportation planning process to help achieve AB 32 goals; 2) use CEQA streamlining as an incentive to encourage residential projects which help achieve AB

32 goals to reduce GHG emissions; and 3) coordinate the regional housing needs allocation process with the regional transportation planning process.

**Senate Bill (SB) 1368**

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. Similarly, the California Energy Commission (CEC) was tasked with establishing a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and the CEC. In January 2007, the PUC adopted an interim GHG Emissions Performance Standard, which requires that all new long-term commitments for baseload generation entered into by investor-owned utilities have emissions no greater than a combined cycle gas turbine plant (i.e., 1,100 pounds of $CO_2$ per megawatt-hour). A "new long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of 5 years or more, or major investments by the utility in its existing baseload power plants. In May 2007, the CEC approved regulations that prohibit the State's publicly owned utilities from entering into long-term financial commitments with plants that exceed the standard adopted by the PUC of 1,100 pounds of $CO_2$ per megawatt hour.

**Senate Bill (SB) 1078**

SB 1078 establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 107 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcomes of this legislation will impact regional transportation powered by electricity.

**Additional California Climate Change Initiatives**

The Western Regional Climate Action Initiative was signed on February 26, 2007 by five states: 1) Washington, 2) Oregon, 3) Arizona, 4) New Mexico, and 5) California. British Columbia, Canada joined on April 20, 2007. The Initiative calls for collaboration to identify, evaluate, and implement ways to reduce GHG emissions in the states collectively and to achieve related co-benefits. The Initiative calls for designing a regional market-based multi-sector mechanism, such as a load-based cap and trade program by August 2008. In addition, a multi-state registry will track, manage, and credit entities that reduce GHG emissions. California is also exploring the possibility of cap and trade systems for GHGs. The Market Advisory Committee to CARB published draft recommendations for designing a GHG cap and trade system for California.[4]

[4] Recommendations of the Market Advisory Committee to the California Air Resources Board, *Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California,* June 30, 2007, p. iii.

In December 2007, the CEC adopted requirements that new residential construction be designed to meet zero net energy by 2020 with commercial construction meeting this requirement by 2030.[5]

### *2.17.2.4 Local*

**San Diego Air Pollution Control District (APCD)**

The APCD has jurisdiction over air quality programs in San Diego County. The APCD regulates most air pollutant sources, except for mobile sources, which are regulated by the CARB or EPA. State and local government projects, as well as projects proposed by the private sector, are subject to APCD requirements if the sources are regulated by the APCD. Additionally, the APCD, along with the CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

Under the requirements of the CCAA, each local air district is required to develop its own strategies to achieve both State and federal air quality standards for its air basin. Accordingly, the San Diego Regional Air Quality Strategy (RAQS) was developed pursuant to CCAA requirements and identifies feasible emission control measures to provide expeditious progress in San Diego County toward attaining the State ozone standard. The APCD is responsible for the overall development and implementation of the RAQS.

The ARB's Scoping Plan includes a role for APCD in adopting standards, inventories, and enforcement procedures for reducing GHG, similar to the way in which criteria pollutants are currently regulated in the County. APCD's strategy for regulating GHGs would be developed once the ARB adopts final regulations and programs pursuant to AB 32.

## 2.17.3 Analysis of Project Effects and Determination of Significance

### *2.17.3.1 Issue 1: Compliance with AB 32*

**Guidelines for Determination of Significance**

The CARB has authority to regulate GHG emissions as necessary to meet the emission reduction goals of AB 32. This may include establishing GHG emission reduction requirements for new land use projects and recommendations for Statewide GHG significance thresholds for CEQA studies. However, the CARB has not yet acted on either item.

CEQA gives a lead agency the discretion to determine the significance of environmental impacts identified in its CEQA documents. The County of San Diego has not yet established guidelines for determining significance for climate change. In order for the proposed General Plan Update to not conflict with the goals and strategies of AB 32, the County needs to reduce GHG emissions to 1990 levels by 2020. As a result, achievement of 1990 emission levels by 2020 has been selected as the significance threshold for this project.

[5] Keith Roberts, Greenhouse Gas Coordinator, City of Sacramento, Written Communication, May 2008.

## Impact Analysis

As part of the EIR process for the General Plan Update, the County of San Diego conducted an inventory of GHG emissions for the unincorporated County for the years 1990, 2006 (baseline conditions), and 2020 (project conditions). Although the horizon year for the General Plan Update may be as far out as 2050 based on the draft SANDAG 2050 forecasts adopted in 2010, AB 32 requirements indicate the year 2020 as the limit by which GHG emissions need to be reduced to 1990 levels. Therefore, in order to determine the required reduction necessary for the County to comply with AB 32, the future year of 2020 is used for this analysis. The full report is provided in Appendix K of this EIR. The GHG inventory is divided into two sources: emissions from 1) County government facilities and operations (Government Operations Analysis); and 2) emissions related to land uses within the unincorporated area (Community Analysis).

### Governmental Operations Analysis

The GHG emissions for both the 1990 and 2006 Government Operations Analysis were calculated using the Clean Air & Climate Protection (CACP) model which was developed by the National Association of Clean Air Agencies (NACAA), the International Council for Local Environmental Initiatives (ICLEI) and Torre Smith Associates. This program was chosen to be used over the Local Government Operations Protocol released in September 2008 due to the lack of detailed data needed to use the newly released protocol.

The Government Analysis inventory focused on GHG emissions that result from five categories:

1. Electricity and natural gas usage from operation of County buildings;
2. Fuel consumption from operation of the County owned vehicles;
3. Fuel consumption from County employee-owned vehicles (commutes);
4. Water usage from County operations; and
5. Waste generation from County operations.

Emission estimates for 2006 are the most accurate, and are discussed first. Limited data was available for the 1990 inventory. Where data was unavailable, regressive estimates were made using assumptions from 2006 data. Projections of 2020 emissions were calculated using the CACP model based on existing (2006) emission rates. Results and assumptions of the Governmental Operations Analysis are discussed below. Table 2.17-4 summarizes the results of the GHG emissions from government operations.

#### *Government Buildings*

Overall, 2006 data for energy and natural gas consumption from County government buildings was readily available and provided by SDG&E. In 2006, the County's electricity consumption from all its buildings, including street lights, was 115,354,851 kWh. The total County operational natural gas consumption for 2006 was 2,540,445 therms. Based on these results, the CACP model calculated the 2006 GHG emissions from the County's electricity and natural gas consumption to be 54,429 metric tons of $CO_2e$.

Operation data for electricity and natural gas consumption in 1990 was not available from SDG&E. In order to estimate 1990 totals, electricity and natural gas usage were regressed

using a methodology based on employee usage rates. The 2006 overall electricity and natural gas consumption was divided by the number of employees to get an annual usage rate per employee. These numbers were then multiplied by the number of employees the County had in 1990 to calculate the total kWh and therms. Based on these results, the CACP model calculated the 1990 GHG emissions from the County's electricity and natural gas consumption to be 48,399 metric tons of $CO_2e$.

The projections for 2020 GHG emissions from County government buildings under a "Business as Usual" (BAU) scenario are estimated to increase to 71,022 metric tons of $CO_2e$. This scenario does not include any measures incorporated by the County designed to reduce GHG emissions.

### *Vehicle Fleet*

Although 2006 information on County's vehicle fleet mix and fuel consumption was readily available, 1990 data was limited to fuel consumption only. Therefore, an assumption on the 1990 composition of the fleet mix was based on existing (2006) data.

In 2006, the County's fleet consumed 2,675,949 gallons of unleaded gasoline, 383,391 gallons of diesel and 14,315 gallons of natural gas. The details of the vehicles and equipment that compose the County's fleet are included in Appendix K. Fuel consumption for each vehicle category is based on its proportion within the entire County fleet. For example, the County owns 1,045 vehicles in the light truck/SUV/pickup vehicle category, which comprises about 32 percent of the overall fleet of gasoline engines. Therefore, this category is assumed to consume 32 percent of the gasoline usage for 2006. It was assumed that 100 percent of the diesel consumed was in the CACP category of heavy trucks and the 100 percent of the natural gas consumed was applied to the CACP vehicle passenger vehicle category. In 2006, the total GHG emissions for the County's fleet were estimated at 22,071 metric tons $CO_2e$.

Fuel consumption data for 1990 by the County's fleet is estimated to be 1,976,629 gallons of gasoline and 281,690 gallons of diesel. No natural gas vehicles were included in the County's fleet in 1990. Information regarding the 1990 County fleet mix is unavailable, so the 2006 fleet mix proportions were applied to the 1990 fuel consumption total. Using these assumptions, the total $CO_2e$ for the County's fleet in 1990 was estimated at 22,071 metric tons.

The projections for 2020 GHG emissions from operation of the County's vehicle fleet under the BAU scenario is estimated to increase to 29,696 metric tons of $CO_2e$.

### *Employee Commute*

Generation of GHG from County employee commuter trips was estimated using vehicle miles traveled (VMT) data for fuel types. According to SANDAG, the region-wide daily average one-way work commute distance in 2006 was 13.3 miles. This was then multiplied by 2 for the round trip then by the number of County employees (17,573) for that year to get a daily amount of 467,442 VMT and an annual amount of 121,534,868 VMT from the employee commute.[6] Average vehicle mix and fuel types were then assumed and the emissions from employee commuter trips in 2006 were estimated at 72,797 metric tons $CO_2e$.

[6] This is a conservative estimate that includes 5 commuting days/week and 52 weeks/year and does not account for employee holidays, sick days, or vacations.

According to SANDAG, the region-wide daily average one-way work commute distance in 1990 was 10.27 miles. Using the same approach in calculating total annual VMT (89,991,080) and using the same percentages of vehicle mix for the employee commute as the existing (2006) condition, the total $CO_2e$ in 1990 was estimated at 63,255 metric tons.

The projection of GHG emissions from employee commutes in 2020 is estimated to be 70,201 metric tons of $CO_2e$. This projection is the output from the CACP model, which is based on previous assumptions for the 1990 levels and the base year of 2006.

***Water***

In 2006, the County used approximately 703 million gallons of water as a part of its government operations. According to the Demand Response Research Center, Water Supply Related Electricity Demand in California 2006, the embodied energy in water is equivalent to 0.0085 kWh/gal. This number multiplied by the total 2006 County water usage is 5.97 million kWh. According to the CACP model, that translates to 2,080 metric tons of $CO_2e$.

Total water consumption data by the County for 1990 was not readily available. Using the 2006 data, a per employee annual water consumption kWh rate was calculated by dividing the total kWh from water consumption by the number of employees. This number was then multiplied by the number of 1990 employees (16,851 employees) for a total 5.73 million kWh from water usage. Using this number the CACP model calculated a total of 1,799 metric tons of $CO_2e$.

The CACP model bases 2020 projections on previous water consumption assumptions for the 1990 levels and the base year of 2006. The CACP model estimates the 2020 County's operational water usage will result in the GHG emission rate of 2,939 metric tons of $CO_2e$.

***Waste***

Estimations of GHG emissions from the generation of waste products were also estimated for County operations. The following categories of waste are included in the CACP model: paper products, food waste, plant debris, wood/textiles, and other waste. Most of the waste generated by the County is paper products from office work and packaging products. Waste amounts per category were based on default California waste characterization for "public administration" from the California Integrated Waste Management Board. The same percentages were used for the 2006, 1990, and 2020 totals.

Records on the amount waste generated by the County and its operations were not readily available. To calculate waste totals in tonnage, the waste generation rate provided by the Office of Federal Environmental Executive of 1.6 pounds per employee per day was used. In 2006, there were 17,573 County employees, totaling 3,515 tons of waste per year. Using "Managed Landfill" as the waste disposal technology used, the 2006 total $CO_2e$ from waste was calculated to be 1,751 metric tons.

In 1990, there were 16,851 County employees, which amount to 3,370 tons of waste per year. This amount generates a total of 1,680 of $CO_2e$ from waste from County operations.

Assuming no net increase in the number of County employees in 2020, the CACP model, bases its 2020 projections on the previous waste assumptions used for the 1990 levels and the base year of 2006. Based on this usage, the projection of GHG emissions for 2020 from employee

waste is estimated to be 1,751 metric tons of $CO_2e$, which is equivalent to the base year of 2006.

**Community Analysis**

A specific regional GHG inventory was prepared by the University of San Diego School of Law Energy Policy Initiative Center (EPIC)[7]. The EPIC study is a detailed inventory that takes into account the unique characteristics of the region in calculating emissions. The GHG inventory calculated GHG emissions for 1990, 2006 and projected out emissions for 2020. To the extent possible the EPIC inventory followed the same calculation methodology used by the CARB to develop the State-wide GHG inventory. However, in some instances when doing so would yield more accurate data, the EPIC inventory modified the CARB method.

The County has chosen to use the EPIC study as the basis of the Community Analysis GHG Inventory. Totals for the various categories were calculated using either a per capita or per VMT approach. The per capita methodology uses SANDAG population numbers for the 1990, 2006 and 2020 estimates. Table 2.17-5 includes the population numbers for both the entire region and the unincorporated area of San Diego County for the years 1990, 2006 and 2020. Table 2.17-6 summarizes the results of the emissions estimates provided for each community sector.

The Community Analysis inventory focused on GHG emissions that result from the following categories:

1. Electricity;
2. Waste;
3. On-road Transportation;
4. Off-Road Equipment and Vehicles;
5. Natural Gas;
6. Other Fuels;
7. Wildfires; and
8. Agriculture (Livestock).

***Electricity***

According to the EPIC inventory, the GHG emissions from the electricity sector for the entire region in 2006 were 9 MMT $CO_2e$. The electricity sector included all of the following uses when calculating total electricity consumption: residential; commercial; industrial; mining; agriculture; transportation, communication, and utilities (TCU); and street lighting. The 2006 population for the entire County (both incorporated and unincorporated areas) was 3,065,077. This equates to a per capita $CO_2e$ of 2.9 metric tons. This per capita equivalent was then multiplied by the population of the unincorporated area in 2006 (439,374) to get a total of 1,391,224 metric tons of $CO_2e$ for the electricity sector of the unincorporated area.

The 1990 levels were calculated in the same manner. According to the EPIC inventory, the total $CO_2e$ for the entire region in 1990 was 6.5 MMT. In 1990 the population for the entire County, including all jurisdictions, was 2,498,016. This equates to a per capita $CO_2e$ of 2.6 metric tons.

[7] The document is titled, "San Diego County Greenhouse Gas Inventory: An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets" and is available online at http://www.sandiego.edu/epic/ghginventory/.

When multiplied by the 1990 population of the unincorporated area (397,763) the result is a total of 1,035,005 metric tons of $CO_2e$ for the electricity sector of the unincorporated area.

Similarly, the 2020 forecasts for the unincorporated area were calculated on a per capita approach based on the EPIC inventory's 2020 numbers. The total GHG emissions forecast for the region were divided by SANDAG's projected regional population (3,635,855), and then multiplied by SANDAG's projected population for the unincorporated area (627,142) for a total of 1,897,370 MMT $CO_2e$.

The EPIC inventory considered all electricity consumed in the San Diego region, which includes electricity used by commercial (the greatest consumer of electricity), industrial and residential uses. Since most of the commercial uses are found in the incorporated jurisdictions of the County, the per capita approach is a very conservative approach and probably overestimates the $CO_2e$ for the unincorporated area of the County.

***Waste***

Emissions from landfills and wastewater treatment constitute about 2 percent of GHG in the region. Biodegradable, carbon-bearing wastes decompose under largely anaerobic conditions to produce landfill gas composed of approximately 50 percent $CH_4$ and 50 percent $CO_2$. $CH_4$ is a more powerful GHG by a factor of 21 than $CO_2$ and degradable wastes in landfill continue to degrade for several decades. The treatment of domestic wastewater also results in the release of $CH_4$ as well as $NO_x$.

The GHG emission total for the San Diego region in 2006 from landfill and wastewater treatment was 700,000 metric tons $CO_2e$. This equates to a per capita annual rate of 0.23 metric tons of $CO_2e$. When multiplied by the population of the unincorporated area for the year 2006, the total for waste was 100,287 metric tons $CO_2e$.

According to the EPIC inventory, the total waste emissions in 1990 were actually higher than the 2006 levels at 900,000 metric tons $CO_2e$. Since at least 1997, both biogas and landfill gas have been captured for combustion and electricity production. This resulted in a nearly 30 percent reduction in GHG emissions. Using the per capita approach, the average person generated 0.36 metric tons of $CO_2e$ per year. When multiplied by the population of the unincorporated area for the year 1990, the total for waste was 143,308 metric tons $CO_2e$.

The same approach was used to generate 2020 forecasts for the unincorporated area based on the EPIC inventory's 2020 numbers. The total GHG emissions forecasted for the region (900,000 metric tons) were divided by SANDAG's projected regional population (3,635,855), and then multiplied by SANDAG's projected population for the unincorporated area (627,142) for a total of 155,239 metric tons of $CO_2e$.

***On-Road Transportation***

On-road transportation is the single largest contributor of GHG emissions in the San Diego region. According to the SDCGHCI, the total $CO_2e$ emissions related to transportation for the entire region was 16 MMT in 2006, which accounted for 46 percent of the total GHG inventory. On-road transportation sources include the following vehicles traveling on roadways in the San Diego region: passenger cars; light-, medium-, and heavy-duty trucks; buses; motor homes; and motorcycles. The SDCGHCI report followed the same calculation methodology used by the

CARB, modified as applicable to yield more precise results. The analysis considered $CO_2$, $N_2O$ and $CH_4$.

In the on-road transportation category, the methodology uses a percentage of the total VMT as a more accurate predictor of GHG emissions than the per capita method. The total daily VMT for the unincorporated area was divided by the total daily VMT for the entire region (provided by SANDAG based on its regional traffic models) to determine the percentage of trips in the unincorporated area of the County. This percentage (18.27) was then multiplied by the 16 MMT $CO_2e$ calculated for 2006 to get a total of 2.92 MMT $CO_2e$ emissions associated with on-road transportation.

The 1990 $CO_2e$ total for the transportation sector was calculated in the same manner. The SDCGHCI report estimates the total 1990 emissions from on-road transportation as 14.3 MMT $CO_2e$. The total daily VMT for the unincorporated area was divided by the total daily VMT for the entire region to determine the percentage of trips in the unincorporated area of the County. This percentage (19.16) was then multiplied by the 14.3 MMT $CO_2e$ for 1990 to get a total of 2.74 MMT $CO_2e$ emissions associated with on-road transportation.

2020 VMT totals for the unincorporated area were not readily available from SANDAG so the 2006 percentage (18.27) was applied to the estimated 2020 GHG totals from the on-road transportation sector as reported in the EPIC inventory to get a total of 3.5 MMT $CO_2e$ for the unincorporated 2020 total.

### *Off-Road Equipment and Vehicles*

In addition to emissions from on-road vehicles such as cars and trucks, off-road equipment and vehicles emit GHG. The four largest sources of GHG in this category are construction and mining, industrial, pleasure craft (boats), and agriculture. These four categories account for about 80 percent of off-road emissions in 2006[8]. This category was responsible for 1.3 MMT $CO_2e$ for the entire region in 2006. A per capita approach (0.42 metric tons) was used to calculate the total $CO_2e$ emissions for the unincorporated area for this category, which was estimated at 186,247 metric tons of $CO_2e$ in 2006.

The 1990 levels for this category were estimated in the same manner. The 1990 $CO_2e$ total for the entire region was 1 million metric tons. The GHG emissions for the unincorporated area were estimated using the per capita (0.40 metric tons) approach and totaled 175,889 metric tons of $CO_2e$.

The same approach was used to calculate the 2020 GHG emissions. The total GHG emissions forecast for the region (1.8 MMT $CO_2e$) was divided by SANDAG's projected regional population (3,635,855), and then multiplied by SANDAG's projected population for the unincorporated area (627,142) to get a total of 275,981 metric tons of $CO_2e$ in 2020.

### *Natural Gas*

Natural gas consumption (including commercial, industrial, and residential use) other than that used for electricity production is a substantial source of GHG emissions. In San Diego County, emissions from natural gas consumption, such as space and water heating, account for about 9

[8] It should be noted that this category does not include GHG emissions from civil aviation, water-borne navigation, or rail, which are accounted for separately in the SDCGHGI report.

percent of regional GHG emissions. According to the EPIC inventory, the 2006 total $CO_2e$ emissions were 3 MMT resulting from commercial, industrial and residential use of natural gas. This results in a per capita $CO_2e$ emission of 0.98 metric tons. When multiplied by the population of the unincorporated area in 2006, the total $CO_2e$ emissions related to natural gas was 429,801 metric tons.

Surprisingly, the total $CO_2e$ emissions related to natural gas consumption in 1990 were essentially the same as 2006. This is due in part from a decrease in industrial consumption of natural gas since 1990 and greater efficiencies within the residential sector. Using the unincorporated population in 1990, the per capita $CO_2e$ emissions were estimated at 1.2 metric tons. This approach resulted in a total of 477,695 metric tons $CO_2e$ associated with natural gas combustion for the unincorporated area in 1990.

The same approach was used to calculate the 2020 GHG emissions. The total natural gas GHG emissions forecast for the unincorporated County in 2020 are estimated to be 620,957 metric tons $CO_2e$.

### *Other Fuels*

Other fuels include distillate (other than in power production), coal (other than in power production), kerosene, gasoline (other than in transportation), liquefied petroleum gas (LPG), residual fuel oil (other than in power production), and wood. According to the EPIC inventory, there was no primary data available for this sector at the County level. Subsequently, Statewide averages were used and scaled down to the San Diego County level using appropriate economic or population data.

For 2006, the other fuels category was estimated to generate 1.1 MMT $CO_2e$. Multiplying the per capita equivalent (0.36 metric ton) by the population of the unincorporated area in 2006 provides an estimated total of 157,594 metric tons $CO_2e$.

Estimates of the region-wide 1990 emissions of GHG from other fuels were higher than 2006 levels at 1.4 million metric tons of $CO_2e$. The cause for this trend is not known, but it may be due to a decrease in overall manufacturing operations since 1990. Multiplying the per capita equivalent for 1990 (0.64 metric ton) by the population of the unincorporated area in 1990 provides an estimated total of 222,924 metric tons $CO_2e$.

The SDCGHCI report indicates an overall decreasing trend for this sector from 1990 levels to a level of 1.3 MMT CO2e, or approximately 16 percent more than 2006 levels, but 13 percent less than 1990 levels. The total GHG emissions from other fuels forecast for the unincorporated County in 2020 is estimated to be 224,235 metric tons $CO_2e$, using the per capita method.

### *Wildfires*

When natural vegetation burns it releases the carbon that is inherently stored in vegetation. Wildfires are a common occurrence in Southern California. Historical records show that two to five firestorms per century have occurred since 1425 in the Southern California region. Firestorms have affected Southern California twice in the last decade. The EPIC inventory has used GIS burn data combined with vegetation data to estimate land cover burned each year. The burn areas in San Diego County during the 2003 and 2007 Firestorms were each about 10 times larger than the annual totals seen during the non-firestorm years 1990-2001. The large fires in 2003 and 2007 together released an estimated 14 MMT $CO_2e$. In 1990, emissions from

wildfires resulted in 200,000 metric tons $CO_2e$. Data for 2006 is not yet available, but the EPIC inventory based the 2006 estimate on the average from 1990-2001, which is 300,000 metric tons $CO_2e$. This average was also used to predict GHG emissions in 2020. As the majority of the wildfires often occur in the unincorporated area, the entire totals are assumed to be in the County's jurisdiction.

During non-firestorm years, emissions from wildfires are typically offset by carbon sequestration from vegetation. However, if the local climate should change and become either hotter, drier, or both, the severity of fires could be expected to increase, making long-term carbon sequestration through plant growth in undeveloped areas difficult.

### *Agriculture (Livestock)*

Agricultural operations generate GHG from livestock emissions, land emissions from forest land, and emissions from aggregate sources such as biomass burning, liming, managed soils, and rice cultivation. In addition, operational emissions are also associated with electricity, natural gas, and fuel consumption from off-road equipment. Land use and operational emissions have been accounted for in other sections of the EPIC inventory, and data from biomass burning, fertilizer rates, and soils are not readily available. Therefore, the discussion of GHG emissions from agriculture in this section focuses on livestock emissions. Livestock emissions are divided into two categories: enteric fermentation and manure management. Enteric fermentation is defined as a fermentation process that takes place in the stomach of ruminant animals, such as cattle. This process produces methane that is released through belching and flatulence. Manure management is the process of gathering and disposing of manure from livestock. As the manure breaks down, methane is released. In 2006, manure management accounted for 65 percent of the GHG emissions in this category while enteric fermentation accounted for 35 percent.

Agricultural emissions make up only a small portion of the GHG inventory for San Diego. Emissions from livestock are less than one percent of the total regional GHG levels. Livestock emissions have consistently been decreasing each year during the period of 1990-2006. The decrease is due to the displacement of farms by urban growth extending into rural areas of the County. The EPIC inventory used data from the San Diego County 2006 Crop Statistics and Annual Report and the U.S. Department of Agriculture National Agricultural Statistics (USDA 2008). Some interpolation and extrapolation was necessary to complete the data sets, which were then combined. Emission estimates for 2020 were projected using a logarithmic decay model.

For manure management, chickens, dairy cows, beef cows, other cows, breeding sheep and hogs were all included for calculations of GHGs. Emissions from enteric fermentation resulted primarily (over 99 percent) from cattle (beef, dairy, and other cows). The estimated GHG emissions from livestock in 1990 were approximately 145,000 metric tons $CO_2e$. In 2006, the GHG emissions were reduced to approximately 65,000 metric tons $CO_2e$ and forecasts for 2020 further reduce the total to 30,000 metric tons $CO_2e$. There is no primary data that separates location of livestock according to jurisdiction. Since maintaining livestock requires larger land tracts and appropriate zoning, it is assumed that the entirety of these emissions fall in the County's jurisdiction.

### Federal, State and Local Regulations and Existing Regulatory Processes

Multiple federal, State and local regulations exist to reduce GHG emissions throughout the unincorporated County. The proposed General Plan Update is required to comply with AB 32, which is the State regulation requiring GHG emissions be reduced to 1990 levels by 2020. The proposed General Plan Update is also required to comply with CARB rules and regulations that would achieve the GHG reductions stated in AB 32. Any future development, consistent with land uses proposed under the General Plan Update, would be required to comply with Title 24 energy efficiency standards, which would help reduce proposed project GHG emissions. Additionally, all future projects would be required to comply with SB 97, which requires CEQA analysis of GHG emissions and the effects of GHG emissions. Required compliance with air quality standards, such as those of the APCD, CARB, and CAA, would reduce criteria GHG emissions throughout the unincorporated County.

Currently, the County has a number of aggressive outreach and small business assistance programs that promote ways to reduce air and water pollution. This includes a Green Building Program which is designed to educate builders and provide incentives for the incorporation of green building standards (http://www.sdcounty.ca.gov/dplu/greenbuildings.html). Additionally, outreach programs are in place that focus on the importance of reducing air quality impacts (lawn mower trade-in program) and reducing solid waste by recycling (compost bin giveaways and transfer station events). The County is also actively engaged in regional efforts to address climate change such as preparation of plans to address SB 375 and coordination on green building approaches, GHG inventories, and CEQA mitigation strategies.

The County is also making its own effort to reduce its GHG emissions. The County has various internal policies in place to reduce GHG emissions from County operations. County Board Policy B-67 requires that preference be given to products which conform to the Minimum Recycled Content Standards. This includes purchases and is used by the County of San Diego, its contractors, and its grantees in its procurement practices. Similarly, the County has established design standards (Board Policy G-15) for County facilities that set forth appropriate techniques, materials, and technology to improve public accessibility, energy performance, resource utilization, and the work environment. In the recent past, several County facilities either have been built to LEED standards or have incorporated renewable energy resources such as photovoltaic technology.

### Proposed General Plan Update Goals and Policies

The proposed General Plan Update includes goals and policies within the Land Use and Conservation Element and Open Space Element that were developed to reduce GHG emissions throughout the unincorporated County. Within the Land Use Element, Goal LU-5 addresses climate change and land use by creating a land use plan and associated development techniques and patterns that reduce emissions of local GHG in accordance with State initiatives, while promoting public health. Goal LU-5.3 would support this goal by preserving existing undeveloped and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) to provide carbon sequestration benefits.

Within the Conservation and Open Space Element, Goal COS-15 promotes sustainable architecture and building techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment. Policies,

COS-15.1, COS-15.2, and COS-15.3 would support this goal by encouraging design and construction of new buildings and upgrades of existing buildings to maximize energy efficiency and reduce GHG. Goal COS-17 promotes sustainable solid waste management. Policies COS-17.1 and COS-17.5 would support this goal by reducing GHG emissions through waste reduction techniques and methane recapture. Goal COS-18 promotes energy systems that reduce consumption of non-renewable resources and GHG. Policy LU-18.2 would support this goal by encouraging methane sequestration and other sustainable strategies to reduce GHG emissions from waste disposal sites. Goal COS-20 promotes GHG reduction through governance and administration. Policies COS-20.1, COS-20.2, and COS-20.4 would support this goal by requiring the preparation of a Climate Change Action Plan, establishing a program to monitor GHG emissions, and promoting public education on GHG emission reduction techniques.

In addition to the goals and policies identified above, Table I-1 in the proposed General Plan document identifies policies that carry out the primary objectives of AB 32. Please refer to this table for General Plan policies that propose strategies to reduce GHG and adapt to affects of climate change.

**Summary**

Table 2.17-7 summarizes the combined GHG emissions in the unincorporated County from government operations and community sources. By the year 2020, GHG emissions are projected to increase to 7.1 MMT $CO_2e$ (from 5.3 MMT $CO_2e$ in 1990) without incorporation of any GHG-reducing policies or mitigation measures. This amount represents an increase of 24 percent over 2006 levels, and a 36 percent increase from estimated 1990 levels. This is considered a potentially significant impact.

By the year 2020, the GHG emissions associated with the County's governmental operations is projected to increase by an approximate total of 0.038 MMT over 1990 levels, from 0.137 MMT in 1990 to 0.176 MMT in 2020. To reduce the County's operational GHG emissions back to the levels estimated in 1990, the County will have to reduce its operational emissions by approximately 33 percent below 2020 levels to comply with the goals of AB 32.

Meanwhile the GHG community emissions from the entire unincorporated area are expected to increase from 5.1 MMT in 1990 to about 7.0 MMT in 2020. To achieve 1990 GHG levels by 2020, the unincorporated area community emissions would have to be reduced by approximately 36 percent below 2020 levels.

Overall, the GHG emissions from the community sector of the County represent the overwhelming source of GHG for the County, comprising 98 percent of the overall total. Therefore, measures incorporated at the community level would result in the most substantial reductions in GHG emissions.

### *2.17.3.2 Issue 2: Potential Effects of Global Climate Change on the General Plan Update*

**Guidelines for Determination of Significance**

Currently, no thresholds or guidelines exist for the determination of significance of the effects of global climate change on a project. Therefore, in the absence of published thresholds, global climate change would be considered to have a significant effect if it would subject development associated with the General Plan Update to substantial climate-related risks to public health or safety.

**Impact Analysis**

The San Diego Foundation's Regional Focus 2050 Working Paper and Technical Assessment explored what the San Diego region would be like in the year 2050 if current climate change trends continue. The range of impacts presented in the Focus 2050 Working Paper and Technical Assessment are based on projections of climate change on the San Diego region using three climate models and two emissions scenarios drawn from those used by the IPCC. A summary of the potential adverse effects of Climate Change on the County of San Diego, as projected in the Focus 2050 Working Paper and Technical Assessment, is provided below.

**Climate**

From observations and model historical simulations, it appears that temperatures began to warm more substantially in the 1970s. Some scientists attribute the change to the response to the effects of GHG accumulation, which began to increase substantially during this time. All of the climate model simulations exhibit warming across San Diego County, ranging from about 1.5 °F to 4.5 °F, with some differences in the timing and geographic distribution of the changes. The models predict greater warming in the summer than in winter, with surface air temperatures warming from 0.7 °F to more than 2 °F over that found in winter. Temperature changes for areas along the coast would be moderated by the influence of the Pacific Ocean, but interior areas, where the greatest population growth would occur, would experience the greatest temperature increase.

The months when San Diego County experiences the most extreme warm temperatures, currently mostly in July and August, will likely begin in June and extend until September. It is estimated that the inland portion of the County may have more than a threefold increase in hot days in 2050. Experts generally conclude that rainfall will continue to vary widely from year to year, leaving San Diego County highly vulnerable to drought. The changes in climate would have the potential to impact future development under the General Plan Update because the majority of the unincorporated County is located inland, where more extreme temperature increases are expected. Therefore, the unincorporated County would be vulnerable to potential drought, wildfires, and public health risks resulting from changes in climate in the County, as described below.

**Sea Level**

If current climate change trends continue, rising sea levels will have a major impact on the San Diego region's environment and economy, particularly in coastal areas. When high tide occurs

during a large storm, particularly in El Niño winters, flooding will threaten homes, businesses, and hotels in low-lying coastal communities such as Imperial Beach, Coronado, Mission Beach, La Jolla Shores, Del Mar, and Oceanside. Flooding may also impact military, port and airport operations. High surf events will last for more hours, with waves causing even greater coastal erosion and related damage. Rising sea levels will wear away the foundations of sea bluffs, such as those found in Solana Beach or Torrey Pines and significantly change the County coastline. Sandy beaches and nearby wetlands serve as a barrier to protect coastline developments from high surf. As these areas shrink from more intense wave activity, there may be a greater need for beach sand replenishment. More seawalls and breakwaters may need to be built to defend homes and businesses from coastal flooding. In addition to being extremely costly, these structures will destroy beaches and wetlands that do not have space to shift inland. Wetlands and estuaries could be devastated, leaving beaches exposed to more pollutants that endanger human and marine life. While most of the unincorporated County is located inland and would not be directly impacted by sea level rise, future development under the General Plan Update in the San Dieguito CPA would have the potential to be at risk for flooding because of its proximity to the coast. The coastal area of the Pendleton/De Luz CPA would also be at risk for flooding associated with sea level rise; however, this area is within the jurisdiction of USMC Camp Pendleton, not the County of San Diego.

**Water Supply**

The County Water Authority predicts an increase in water demand for San Diego County of around 24 percent, from 668,000 acre-feet/year (the 2001-2005 average) to about 830,000 acre-feet/year in 2030. About 70 percent of this demand is expected to come from imported sources. By 2050, the expected demand will increase to 915,000 acre-feet/year, which is an increase of 37 percent over the 2001-2005 period. By 2050, about 80 percent of the water supply is expected to be imported.

Drought years, which have historically increased water demand by another seven percent, might occur as much as 50 percent as often and be considerably drier. In drought years, parched soil soaks up more surface water and groundwater, increasing the need for imported and other water supplies. At the same time that the County demand for water would increase, climate change could shrink the Colorado River flow (a major source of imported water for the County) by 20 percent or more. A decline in the Sierra Nevada snowpack, aggravated by increased temperatures, could impact the water flow of many Northern California Rivers which serve as primary sources of water to the California Aqueduct, a major source of imported water for the County. San Diego's water supply plans are likely to be severely challenged by climate change. Even with plans in place to conserve, recycle, and augment our available water, it is estimated San Diego County could face an 18 percent shortfall in water supply by 2050 (San Diego Foundation 2008). As discussed in Section 2.16.3.4, Issue 4: Adequate Water Supplies, due to uncertainties surrounding the implementation of future water supply projects, water supplies may be inadequate to serve the build out of the proposed General Plan Update. Additional reductions in water supply as a result of climate change would further impact the availability of water to support future development under the General Plan Update.

**Water Quality**

Increased temperatures and changes in precipitation patterns can also affect the quality of water supplies (EPA 2009a). For example, changes in runoff patterns can result in additional pollution and sedimentation in surface waters; and changes in evaporation rates or sea level rise can increase salinity within freshwater bodies and within groundwater basins.

As discussed in Section 2.8.1.4, Water Quality, increased pollutants can lead to contaminated drinking water for humans and animals, potentially leading to adverse public health issues. Moreover, excessive sedimentation can adversely affect aquatic organisms, hinder photosynthesis, and disrupt lifecycle and behavioral activities of wildlife.

**Wildfires**

Fire occurrence has steadily increased in Southern California, in direct proportion to human population growth as most ignitions are caused by human activities. Most fires start during the summer, when coastal sage and chaparral vegetation have dried to a highly flammable state. Fires that start during the fall, however, burn many more acres because flames are intensified and spread by hot, dry Santa Ana winds. It is not entirely clear from climate change models how Santa Ana conditions will affect San Diego regional fire regimes in the future. Some models predict a decrease in the frequency and intensity of Santa Ana conditions while others predict an increase, particularly during the fire season. If Santa Ana conditions increase significantly earlier in the fire season, this shift could increase the incidence of massive Santa Ana fires, because the winds will begin gusting during the time of year when most fires start. More frequent fires would threaten native plant species by not allowing sufficient recovery time before they burn again. This would allow weedy, non-native species, which thrive in post-fire conditions, to multiply. Weedy invaders dry out earlier in the year, catch fire more easily, and burn faster than native plants.

Additionally, if current trends continue, the San Diego region will experience a population increase, with more development and human activities in backcountry areas over the coming decades. As a result of climate change, we can expect higher spring temperatures, scorching summers, drier vegetation, and longer fire seasons. A simultaneous occurrence of all of these factors will increase the likelihood of more devastating firestorms similar to those that destroyed many homes and lives in the unincorporated County during 2003 and 2007. As discussed in Section 2.7.3.8, Issue 8: Wildland Fires, the vast majority of the unincorporated County is already ranked as having a high or very high fire hazard risk. Future development under the General Plan Update would increase the population in the unincorporated County, which would result in greater wildland fire risks to people and structures. Climate change has the potential to increase the already high fire hazard risk to future development projects occurring under the General Plan Update.

**Ecosystems**

San Diego County beaches, canyons, mountains and deserts support a vast variety of plants and animals, some of which are found nowhere else on the planet. This biodiversity is already under stress from human population growth and land use changes that have broken up and reduced species habitat into fragmented areas. The impacts of climate change will add to the pressures on habitats and the species that live in the County. As a result, the locations where the temperature, moisture, and other environmental conditions are suitable for a particular species will shift. Plant and animal species are generally able to adapt to shifting habitats, but under existing trends, climate change would occur so rapidly that ecological conditions may shift faster than species are able to follow. To survive, some animals and plants will have to move up to 95 miles over the next century to find new habitat or they will face extinction. Drought and unusually warm years have already led to growing insect populations, such as bark beetles, which have attacked and killed drought-stressed trees in San Diego County. With warmer weather, the County's forests will lose even more trees. Ecological changes will cascade, as

the loss of one species will challenge the ability of other species up and down the same food chain to survive. Top predators like coyotes may be lost if habitat patches become too small or isolated, and that can lead to an increase in smaller predators that prey on native songbirds. As discussed in Section 2.4.3.1, Issue 1: Special Status Plant and Wildlife Species, future development under the General Plan Update would have the potential to impact plant and wildlife species in the County through direct removal of habitat or indirectly through impacts such as water quality, fugitive dust emissions, and introduction of non-native species. Climate change would increase the severity of impacts to biological resources that would occur from future development under the General Plan Update.

**Public Health**

Increased heat, air pollution, wildfires, and infectious disease will cause illness and death in San Diego County, especially among the elderly, children, and the chronically ill. Californians experience the worst air quality in the nation, and San Diego is currently out of compliance with the federal ozone standard. By 2050, more hot sunny days will increase ozone air pollution levels, which can exacerbate asthma and other respiratory and cardiovascular diseases. Fire-related injuries and death are likely to increase as intense wildfires occur more frequently. Wildfires can also be a significant contributor to air pollution. Wildfire smoke contains numerous toxic and hazardous pollutants that are dangerous to breathe and can worsen lung disease and other respiratory conditions. As discussed above, the project area is already at risk for wildfire and climate change would potentially increase the risk. Therefore, future development proposed under the General Plan Update would be exposed to air pollution and associated health risks as a result of increased wildfires. Additionally, future development proposed under the General Plan Update would be exposed to a regional increase in ozone air pollution levels and associated health impacts as a result of climate change.

Warmer temperatures year-round could lead to growing mosquito populations, increasing the occurrence of West Nile Virus in the San Diego region. Hot weather could also bring tropical diseases such as malaria and dengue fever to the region for the first time. In coastal waters, conditions are likely to favor more frequent “red tides” or harmful algal blooms, which can harbor toxic bacteria and other diseases. In 2050, with an aging population and more residents living in areas with extreme-heat conditions and poor air quality, the San Diego region will face intensified public health concerns. As discussed above, inland areas of the County are expected to experience greater increases in temperate than coastal areas. The majority of the unincorporated County is located in inland areas; therefore, future development under the General Plan Update would potentially be exposed to increased health risks from increased temperature due to climate change.

**Energy Needs**

If current climate change trends continue, warmer temperatures and a growing population will translate into big challenges for the San Diego region’s energy supply by 2050. The main impact will be higher demand for electricity as a result of the greater need for summer cooling, especially in inland areas where both regional population growth and temperature increases will be highest. Hotter summers and more frequent, longer and intense heat waves will increase peak demand for electricity, which could result in blackouts and power outages without adequate planning. As discussed in Section 2.16.3.8, Issue 8: Energy, the construction or expansion of energy facilities would be required to support future development under the General Plan Update. Additionally, the majority of the unincorporated County is located inland,

where temperature increases are expected to be the greatest. Climate change would increase the need for new or expanded energy facilities in the County to provide summer cooling for future development projects proposed under the General Plan Update. It would also increase the potential for future development under the General Plan Update to be subject to blackouts and power outages.

**Federal, State and Local Regulations and Existing Regulatory Processes**

Compliance with CEQA would be required for all future discretionary development projects. Depending on the type and size, the individual project may be required to assess and mitigate the potential adverse effects associated with climate change. Additionally, multiple federal, State and local regulations exist to reduce GHG emissions throughout the unincorporated County, and such reductions would also reduce the adverse effects associated with climate change. The proposed General Plan Update would be required to comply with AB 32, which is the State regulation requiring GHG emissions to be reduced to 1990 levels by 2020. The proposed General Plan Update would also be required to comply with CARB rules and regulations that would achieve the GHG reductions stated in AB 32. Future development consistent with land uses proposed under the General Plan Update would be required to comply with Title 24 energy efficiency standards, which would help reduce GHG emissions. Required compliance with air quality standards, such as those of the APCD, CARB, and CAA, would reduce criteria GHG emissions throughout the unincorporated County. In addition, multiple County policies, such as BOS Policies B-67 and G-15, exist to assist in the reduction of GHG emissions and adverse effects associated with climate change.

**Proposed General Plan Update Goals and Policies**

There are multiple goals and policies within the proposed General Plan Update that would reduce the adverse effects of climate change. Table I-1 in the proposed General Plan document identifies multiple policies in the San Diego County General Plan that would reduce adverse impacts associated with climate change. Please refer to this table in the General Plan to see the full inventory of policies that propose strategies to reduce GHG and adapt to effects of climate change.

**Summary**

Climate change impacts that would be most relevant to the unincorporated County are the effects on water supply, wildfires, energy needs, and impacts to public health. The climate change scenarios described above project impacts to the year 2050, which is further in the future than the scope of the General Plan Update, which plans for development to the year 2030. Also, the climate system is inherently complex and predictions of effects are likely to be refined as information becomes more readily available. Regardless, impacts that may affect the County as a result of climate change impacts are considered potentially significant.

## 2.17.4 Cumulative Impacts

### *2.17.4.1 Issue 1: Compliance with AB 32*

Climate change is a global phenomenon which is cumulative by nature, as it is the result of combined worldwide contributions of GHG to the atmosphere over many years. Therefore,

impacts associated with the proposed General Plan Update discussed above also serve as the proposed project's cumulative impact.

### *2.17.4.2 Issue 2: Effects of Global Climate Change on the General Plan Update*

Climate change is a global phenomenon which is cumulative by nature, as it is the result of combined worldwide contributions of GHG to the atmosphere over many years. Therefore, significant direct impacts associated with the proposed General Plan Update discussed above also serve as the proposed project's cumulative impact.

## 2.17.5 Significance of Impact Prior to Mitigation

Prior to mitigation, the proposed General Plan Update would have a potentially significant impact associated with compliance with AB 32. Additionally, future development consistent with the land uses proposed under the General Plan Update would be significantly impacted by the adverse effects of climate change. The direct impacts discussed in Section 2.17.3.1, Issue 1: Compliance with AB 32 and Section 2.17.3.2, Issue 2: Effects of Global Climate Change on the General Plan Update, also serve as the cumulative impacts for climate change. Therefore, the proposed project would have a potentially significant cumulative impact.

## 2.17.6 Mitigation

### *2.17.6.1 Issue 1: Compliance with AB 32*

To achieve 1990 levels of GHG for both the County's operations and for the community emissions, mitigation measures would be necessary. The goal of AB 32 is to reduce 2020 emissions to 1990 levels. The proposed General Plan Update would allow for additional growth in the County that would contribute to additional GHG emissions. General Plan Update policies and mitigation measures (described below), have been identified that would minimize the potentially significant impact to AB 32. However, as detailed in the State's Scoping Plan, in order to achieve AB 32 levels, action will be required at all levels of government. Several federal and State programs will have a significant role in reducing emissions. Many of these programs are already underway; however, some are in their infancy and full implementation has not yet been realized and others are merely anticipated. While the State's commitment to AB 32 provides some assurances that these efforts will come to complete fruition, they are beyond the authority of the County. Without them, a greater burden would be placed on the County in order to achieve the AB 32 targets. Nevertheless, the County has committed to achieving the 1990 emission levels by 2020 in the proposed General Plan Update. This commitment is supported by numerous General Plan Update policies and mitigation measures listed below. Therefore, impacts related to GHG emissions and compliance with AB 32 would be reduced to a less than significant level.

**General Plan Update Policies**

Implementation of the following General Plan Update policies, in combination with those listed in Table I-1 of the proposed General Plan Update, and mitigation measures listed below would reduce proposed project impacts related to compliance with AB 32 to below a significant level.

**COS-10.7: Recycling of Debris.** Encourage the installation and operation of construction and demolition (C&D) debris recycling facilities as an accessory use at permitted (or otherwise authorized) mining facilities to increase the supply of available mineral resources.

**COS-15.1: Design and Construction of New Buildings.** Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

**COS-15.2: Upgrade of Existing Buildings.** Promote and, as appropriate, develop standards for the retrofit of existing buildings to incorporate architectural features, heating and cooling, water, energy, and other design elements that improve their environmental sustainability and reduce GHG.

**COS-15.3: Green Building Programs.** Require all new County facilities and the renovation and expansion of existing County buildings to meet identified "green building" programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

**COS-17.1: Reduction of Solid Waste Materials.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.

**COS-17.5: Methane Recapture.** Promote efficient methods for methane recapture in landfills and the use of composting facilities and anaerobic digesters and other sustainable strategies to reduce the release of GHG emissions from waste disposal or management sites and to generate additional energy such as electricity.

**COS-18.2: Energy Generation from Waste.** Encourage use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG emissions from waste disposal or management sites.

**COS-20.1: Climate Change Action Plan.** Prepare, maintain, and implement a climate change action plan with a baseline inventory of GHG emissions from all sources, GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.

**COS-20.2: GHG Monitoring and Implementation.** Establish and maintain a program to monitor GHG emissions attributable to development, transportation, infrastructure, and municipal operations and periodically review the effectiveness of and revise existing programs as necessary to achieve GHG emission reduction objectives.

**COS-20.4: Public Education.** Continue to provide materials and programs that educate and provide technical assistance to the public, development professionals, schools, and other parties regarding the importance and approaches for sustainable development and reduction of GHG emissions.

**Mitigation Measures**

The County's governmental operational emissions for 2020, assuming a BAU scenario, would total approximately 175,609 MT of $CO_2e$. This is approximately 38,405 MT of $CO_2e$ more than

the 1990 level of 137,204 MT of $CO_2e$. The mitigation measures discussed below are projected to reduce the County governmental operational GHG emissions to a level below the 1990 levels. Table 2.17-8, shows the projected emission reductions associated with each category. Reductions identified in Table 2.17-8 are based on the 2020 BAU projection. The GHG Reduction Climate Change Action Plan, which would be prepared as a mitigation measure, would further detail the County's GHG emissions and where the reductions will occur.

The Community emissions for 2020, assuming no mitigation, would total approximately 6,975,287 MT of $CO_2e$. This is 1,835,466 MT of $CO_2e$ more than the 1990 level of 5,139,821 MT of $CO_2e$. The mitigation measures discussed below are projected to reduce the Community GHG emissions to 1990 levels when combined with federal, State, and regional programs. Table 2.17-9, shows the projected emission reductions associated with each section in the Community category. Reductions identified in Table 2.17-9 are based on the 2020 BAU projection. The GHG Reduction Climate Change Action Plan, which would be prepared as a mitigation measure, would further detail the community GHG emissions, and describe where and how the reductions would occur.

**CC-1.1** Update the County Green Building Program to increase effectiveness of encouraging incentives for development that is energy efficient and conserves resources through incentives and education.

**CC-1.2** Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.

**CC-1.3** Work with SANDAG to achieve regional goals in reducing GHG emissions associated with land use and transportation.

**CC-1.4** Review traffic operations to implement measures that improve flow and reduce idling such as improving traffic signal synchronization and decreasing stop rate and time.

**CC-1.5** Coordinate with the San Diego County Water Authority and other water agencies to better link land use planning with water supply planning with specific regard to potential impacts from climate change and continued implementation and enhancement of water conservation programs to reduce demand. Also support water conservation pricing (e.g., tiered rate structures) to encourage efficient water use.

**CC-1.6** Implement and expand County-wide recycling and composting programs for residents and businesses. Require commercial and industrial recycling.

**CC-1.7** Incorporate the California ARB's recommendations for a climate change CEQA threshold into the County Guidelines for Determining Significance for Climate Change. These recommendations will include energy, waste, water, and

transportation performance measures for new discretionary projects in order to reduce GHG emissions. Should the recommendation not be released in a timely manner, the County will prepare its own threshold.

**CC-1.8** Revise County Guidelines for Determining Significance based on the Climate Change Action Plan. The revisions will include guidance for proposed discretionary projects to achieve greater energy, water, waste, and transportation efficiency.

**CC-1.9** Coordinate with APCD, SDG&E, and the California Center for Sustainable Energy to research and possibly develop a mitigation credit program. Under this program, mitigation funds will be used to retrofit existing buildings for energy efficiency to reduce GHG emissions.

**CC-1.10** Continue to implement the County Groundwater Ordinance, Watershed Protection Ordinance (WPO), Resource Protection Ordinance (RPO), MSCP and prepare MSCP Plans for North and East County in order to further preserve wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits and to restrict the use of water for cleaning outdoor surfaces and vehicles. The WPO also implements low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)

**CC-1.11** Revise the Ordinance Relating to Water Conservation for Landscaping to further water conservation to:

- Create water-efficient landscapes and use water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Use reclaimed water for landscape irrigation.
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Provide education about water conservation and available programs and incentives.

**CC-1.12** Continue to coordinate with resource agencies, CALFIRE, and fire districts to minimize potential wildfire risks in the County and to plan for the potential increase in future risk that may result from Climate Change.

**CC-1.13** Continue to implement and revise as necessary the Regional Trails Plan as well as the Community Trails Master Plan to connect parks and publicly accessible open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.

**CC-1.14** Provide public education and information about options for reducing greenhouse gas emissions. In addition to addressing land development, education should also address purchasing, conservation, and recycling.

**CC-1.15** Reduce VMT and encourage alternative modes of transportation by implementing the following measures:

- During Community Plan updates, establish policies and design guidelines that: encourage commercial centers in compact walkable configurations and discourage "strip" commercial development
- Expand community bicycle infrastructure.
- Revise the Off-Street Parking Design Manual to include parking placement concepts that encourage pedestrian activity and concepts for providing shared parking facilities.
- Establish comprehensive planning principles for transit nodes such as the Sprinter Station located in North County Metro.
- Continue to locate County facilities near transit facilities whenever feasible.
- Coordinate with SANDAG, Caltrans, and tribal governments to maximize opportunities to locate park and ride facilities.
- Continue to coordinate with SANDAG, Caltrans, and transit agencies to expand the mass transit opportunities in the unincorporated county and to review the location and design of transit stops. Establish a DPLU transit coordinator to ensure land use issues are being addressed.
- Update the Zoning Ordinance to require commercial, office, and industrial development to provide preferred parking for carpools, vanpools, electric vehicles, and flex cars.

**CC-1.16** Develop and implement a Strategic Energy Plan to increase energy efficiency in existing County buildings and set standards for any new County facilities that will ultimately reduce GHG emissions. This will include implementation of the following measures as will be detailed within the Plan:

- Improve energy efficiency within existing operations through retrofit projects, updated purchasing policies, updated maintenance/operations standards, and education.
- Improve energy efficiency of new construction and major renovations by applying design criteria and participating in incentive programs.
- Provide energy in a reliable and cost-effective manner and utilize renewable energy systems where feasible.
- Monitor and reduce energy demand through metering, building controls, and energy monitoring systems.
- Increase County fleet fuel efficiency by acquiring more hybrid vehicles, using alternative fuels, and by maintaining performance standards for all fleet vehicles.

**CC-1.17** Develop and implement a County Operations Recycling Program. This will include implementation of the following measures as will be detailed within the Program:

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- Recover by-product methane to generate electricity.
- Provide education and publicity about reducing waste and available recycling services.

**CC-1.18** Develop and implement a County Operations Water Conservation Program.

**CC-1.19** Revise the Zoning Ordinance to facilitate recycling salvaged concrete, asphalt, and rock.

### *2.17.6.2 Issue 2: Effects of Global Climate Change on the General Plan Update*

The proposed General Plan Update policies and corresponding mitigation measures identified above in Section 2.17.6.1, Issue 1: Compliance with AB 32, in combination with applicable regulations including the CAA, Lieberman-Warner Climate Security Act, CARB standards, Title 24 standards, Executive Order S-3-05, AB 32, Executive Order S-01-07, SB 97, SB 1368, SB 1078, APCD standards and existing County programs and policies, would mitigate direct and cumulative impacts to development from adverse effects of climate change. Additional relevant proposed General Plan Update policies and corresponding mitigation measures that would address impacts from climate change on the General Plan Update are identified in the respective issue sections in this EIR. Because climate change is a global issue, the efforts made by the County and even the State to reduce GHG emissions will not avoid the consequences of excessive GHG emissions throughout the world. However, with AB 32, the State of California has committed to addressing its share of the issue and with the General Plan Update, the County would be committing to their share as well. Additionally, the policies and mitigation measures proposed with the General Plan Update enable the County to readily respond to adverse consequences from global climate change. Therefore, the impacts related to affects of climate change on the General Plan Update would be reduced to a less than significant level.

## 2.17.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

### *2.17.7.1 Issue 1: Compliance with AB 32*

By the year 2020, GHG emissions are projected to increase to 7.1 MMT $CO_2e$ (from 5.3 MMT $CO_2e$ in 1990) without incorporation of any GHG-reducing policies or mitigation measures. This amount represents an increase of 24 percent over 2006 levels, and a 36 percent increase from estimated 1990 levels. Therefore, the proposed project would result in a potentially significant impact related to compliance with AB 32. Additionally, the proposed project would result in a

potentially significant cumulative impact. The proposed General Plan Update policies and mitigation measures would reduce direct and cumulative impacts related to compliance with AB 32 and would mitigate these impacts to a level below significant.

### *2.17.7.2 Issue 2: Effects of Global Climate Change on the General Plan Update*

Climate change impacts that would be most relevant to the unincorporated County, and the proposed General Plan Update, include effects on water supply, wildfires, energy needs, and impacts to public health. The proposed General Plan policies and mitigation measures discussed above, in addition to compliance with applicable regulations such as the CAA, Lieberman-Warner Climate Security Act, CARB standards, Title 24 standards, Executive Order S-3-05, AB 32, Executive Order S-01-07, SB 97, SB 1368, SB 1078, APCD standards and existing County programs and policies, would mitigate the potential direct and cumulative impacts of global climate change to a level below significant.

## Table 2.17-1. Global Warming Potentials and Atmospheric Lifetimes of Basic GHGs

| GHG | Formula | 100-year global warming potential[(1)] | Atmospheric lifetime (yrs) |
|---|---|---|---|
| Carbon dioxide | $CO_2$ | 1 | Variable |
| Methane | $CH_4$ | 21 | 12 (± 3) |
| Nitrous oxide | $N_2O$ | 310 | 120 |
| Sulphur hexafluoride | $SF_6$ | 23,900 | 3,200 |

(1) The warming effects over a 100-year time frame relative to other GHGs.
Source: EPA 2006

## Table 2.17-2. State of California GHG Emissions by Sectors in 2004

| Sector | Total Emissions (MMT $CO_2e$) | Percent of Total Emissions |
|---|---|---|
| Agriculture | 27.9 | 6 |
| Commercial | 12.8 | 3 |
| Electricity Generation | 119.8 | 25 |
| Forestry (excluding sinks) | 0.2 | <1 |
| Industrial | 96.2 | 20 |
| Residential | 29.1 | 6 |
| Transportation | 182.4 | 38 |
| Misc* | 16.0 | -- |
| Total (Gross) Emissions | 484.4 | N/A |
| Forestry Sinks | -4.7 | -- |
| Net Emissions | 479.7 | N/A |

* Unspecified fuel combustion which could not be attributed to an individual sector.
Percents may not total 100 due to rounding.
Source: CARB 2007

### Table 2.17-3. County of San Diego GHG Emissions by Category (2006)

| Sector | Total Emissions (MMT $CO_2e$) | Percent of Total Emissions |
|---|---|---|
| On-Road Transportation | 15.6 | 46 |
| Electricity | 8.5 | 25 |
| Natural Gas Consumption | 3 | 9 |
| Civil Aviation | 1.7 | 5 |
| Industrial Processes & Products | 1.6 | 5 |
| Other Fuels / Other | 1.1 | 4 |
| Off-Road Equipment & Vehicles | 1.3 | 4 |
| Waste | 0.7 | 2 |
| Agriculture/Forestry/Land Use | 0.4 | 2 |
| Rail | 0.3 | 1 |
| Water-Borne Navigation | 0.1 | 0.4 |
| Total | 34.4 | 100 |

Note: Numbers may not total to 100 percent due to rounding
Source: Energy Policy Initiative Center, University of San Diego School of Law, 2008

### Table 2.17-4. County of San Diego Government Operational GHG Emissions (metric tons $CO_2e$)

| Category | 1990 Totals | 2006 Totals | 2020 Projections[(1)] |
|---|---|---|---|
| Buildings | 48,399 | 54,429 | 71,022 |
| Vehicle Fleet | 22,071 | 29,719 | 29,696 |
| Employee Commute | 63,255 | 72,797 | 70,201 |
| Water | 1,799 | 2,080 | 2,939 |
| Waste | 1,680 | 1,751 | 1,751 |
| **Total** | **137,204** | **160,776** | **175,609** |

(1) Assumes a Business as Usual scenario, i.e., development of the General Plan without incorporation of GHG reduction measures.
Source: DPLU 2009g

### Table 2.17-5. San Diego County Population Estimates

| Year | San Diego County (entire region) | Unincorporated Area |
|---|---|---|
| 1990 | 2,498,016 | 397,763 |
| 2006 | 3,065,077 | 473,801 |
| 2020 | 3,635,855 | 627,142 |

Source: SANDAG 2008

### Table 2.17-6. Community GHG Emissions for Unincorporated County (metric tons $CO_2e$)

| Category | 1990 Totals | 2006 Totals | 2020 Projections |
|---|---|---|---|
| Electricity (includes water usage) | 1,035,005 | 1,391,224 | 1,897,370 |
| Solid Waste | 143,308 | 108,206 | 155,239 |
| On-Road Vehicles | 2,740,000 | 2,923,373 | 3,471,505 |
| Off-Road Vehicles & Equipment | 175,889 | 200,955 | 275,981 |
| Other Fuels | 222,924 | 170,039 | 224,235 |
| Natural Gas | 477,695 | 463,741 | 620,957 |
| Wildfire | 200,000 | 300,000 | 300,000 |
| Agriculture (Livestock) | 145,000 | 62,000 | 30,000 |
| **Total** | **5,139,821** | **5,619,538** | **6,975,287** |

Source: DPLU 2009g

### Table 2.17-7. Combined Operation and Community GHG Emissions for Unincorporated County (metric tons $CO_2e$)

| Category | 1990 Totals | 2006 Totals | 2020 Totals[(1)] |
|---|---|---|---|
| Government Operations | 137,204 | 160,776 | 175,609 |
| Community | 5,139,821 | 5,619,538 | 6,975,287 |
| **Total** | **5,227,025** | **5,780,314** | **7,150,896** |

(1) Assumes a Business as Usual scenario
Source: DPLU 2009g

### Table 2.17-8. County Operation Estimated GHG Emissions Reductions (metric tons $CO_2e$)

| Category | 2020 Projections[(1)] | Projected GHG Reductions | 2020 Projections | 1990 Estimates |
|---|---|---|---|---|
| Buildings | 71,022 | -29,199 | 41,823 | 48,399 |
| Vehicle Fleet | 29,696 | -7,424 | 22,272 | 22,071 |
| Employee Commute | 70,201 | -15,444 | 54,757 | 63,255 |
| Water | 2,939 | -1,000 | 1,939 | 1,799 |
| Waste | 1,751 | -500 | 1,251 | 1,680 |
| **Total** | **175,609** | **-53,567** | **122,042** | **137,204** |

(1) Assumes a Business as Usual scenario
Source: DPLU 2009g

## Table 2.17-9. Community Projected GHG Emissions Reductions for Unincorporated County (metric tons $CO_2e$)

| Category | 2020 Projections[(1)] | Projected GHG Reductions | 2020 Projections | 1990 Estimates |
|---|---|---|---|---|
| Electricity (includes water usage) | 1,897,370 | -702,026 | 1,195,344 | 1,035,005 |
| Natural Gas | 620,957 | -49,676 | 571,281 | 477,695 |
| On-Road Vehicles | 3,471,505 | -902,591 | 2,568,914 | 2,740,000 |
| Off-Road Vehicles & Equipment | 275,981 | -103,493 | 172,488 | 175,889 |
| Solid Waste | 155,239 | -51,229 | 104,010 | 222,924 |
| Other Fuels | 224,235 | -56,059 | 168,176 | 143,308 |
| Wildfire | 300,000 | -- | 300,000 | 200,000 |
| Agriculture (Livestock) | 30,000 | -- | 30,000 | 145,000 |
| **1990 Total** | **--** | | | **5,139,821** |
| **Total** | **6,975,287** | **-1,865,074** | **5,110,213** | 1,035,005 |

(1) Assumes a Business as Usual scenario
Source: DPLU 2009g

# CHAPTER 3.0 OTHER CEQA CONSIDERATIONS

Section 15126 of the CEQA Guidelines requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must identify the following three components, which are addressed in this chapter:

a. Growth-inducing impacts of the proposed project (addressed below in Section 3.1);

b. Significant irreversible environmental effects that would be involved in the proposed project should it be implemented (addressed below in Section 3.2); and

c. Significant environmental effects that cannot be avoided if the proposed project is implemented (addressed below in Section 3.3).

## 3.1 Growth Inducing Impacts

As required by the CEQA Guidelines, an EIR must include a discussion of the ways in which the proposed project could directly or indirectly foster population growth or economic development, and how that growth would, in turn, affect the surrounding environment (CEQA Guidelines Section 15126.2[d]). According to CEQA Guidelines Section 15126.2(d), "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

A project can have direct and/or indirect growth inducement potential. Direct growth inducement can result from the construction of new housing that would result in new residents moving to an area. Indirect growth can be induced in a number of ways, including the stimulation of economic activity within the region that would result in the need for additional housing and services to support the new employment demand, or through the elimination of obstacles to growth, including both physical and regulatory obstacles. These topics are discussed in Sections 3.1.1 through 3.1.3 below.

Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Since the general plan of a community defines the location, type and intensity of growth, it is the primary means of regulating development and growth in that community. If approved, the proposed General Plan Update would be the applicable land use plan for the unincorporated area of San Diego County. It proposes areas for development of residential, commercial and industrial land uses, as well as roads and other infrastructure, to accommodate forecasted population growth.

The General Plan is responsible for accommodating its fair share of regional growth, as identified in the SANDAG Regional Comprehensive Plan (RCP), and discussed in Section 2.12, Population and Housing. While the General Plan Update would not result in unplanned growth, it would be considered growth inducing because it would accommodate an increase in population growth in the unincorporated County as compared to the existing condition. The General Plan Update proposes land use designations that would allow the construction of new housing, commercial uses and other employment areas, and new infrastructure that would allow growth to occur in areas previously constrained by lack of infrastructure, as described in greater detail below in Sections 3.1.1 through 3.1.3. Additionally, the CEQA Guidelines further explain

that the environmental effects of induced growth are considered indirect impacts of a proposed project and may be considered significant, adverse environmental impacts. Potential environmental impacts of growth are discussed below in Section 3.1.4.

## 3.1.1 Direct Population Growth

The General Plan Update serves as a comprehensive, long-term plan for the physical development of the unincorporated San Diego County. By definition, the General Plan Update would provide for and address future growth in the unincorporated County. The General Plan Update would directly influence the unincorporated County's population by providing land use designations to accommodate a population of 678,270 by 2030, which is 54 percent greater than the existing 2000 population, and a total of and additional 71,540 housing units compared to 2008 conditions. Therefore, the development of land uses and infrastructure that would be accommodated by the proposed General Plan Update would directly induce population growth. As described in Section 1.13.3, Growth Accommodated by the General Plan Update, the majority of future development, approximately 80 percent, under the General Plan Update would be concentrated in the northwestern and southwestern portion of the unincorporated County, west of the San Diego County Water Authority (SDCWA) boundary where existing infrastructure is available. Therefore, under the General Plan Update, the areas in the western unincorporated County would accommodate greater increases in housing units and population growth as compared to the eastern areas. Between 2008 and 2030, the following western communities would experience large increases in housing units as indicated: Alpine CPA (56 percent), Bonsall CPA (54 percent), Fallbrook CPA (35 percent), North County Metro Subregion (86 percent), Otay Subregion (44,851 percent), Rainbow CPA (90 percent), Ramona CPA (52 percent), and Valley Center CPA (108.5 percent). However, because the eastern portion of the unincorporated County is relatively undeveloped, the accommodated increase in development under the General Plan Update in this portion of the County would have the potential to result in a substantial increase in population growth relative to existing conditions. Housing units in the Desert Subregion, Mountain Empire Subregion, North Mountain Subregion, and Pala/Pauma Valley Subregion are anticipated to at least double between 2008 and 2030.

As described above, the General Plan Update has the potential to also induce direct population growth if it increased the number of residential developments within the County. The General Plan Update land use map identifies residential designations that would allow development of residential uses to accommodate future population growth in the unincorporated County. Between 2008 and 2030, the following western communities would experience large increases in housing units, as described above (see also discussion in Section 1.13.3, Growth Accommodated by General Pan Update): Alpine CPA, Bonsall CPA, Fallbrook CPA, North County Metro Subregion, Otay Subregion, Rainbow CPA, Ramona CPA, and Valley Center CPA. The following areas would experience limited increases in housing units under the General Plan Update because they are nearly built-out and have limited space available for new development: County Islands CPA, Lakeside CPA, San Dieguito CPA, Spring Valley CPA, Sweetwater CPA, and Valle de Oro CPA. The eastern communities of Central Mountain Subregion, Crest/Dehesa Subregion, and Julian CPA would accommodate relatively low increases of housing units because modest growth is proposed for these areas under the General Plan Update. The Desert Subregion, Jamul/Dulzura CPA, Mountain Empire Subregion, North Mountain Subregion, and Pala/Pauma Valley Subregion are eastern areas of the County that would experience relatively large increases in residential units compared to 2008 conditions. The acreage of residential land uses designated by the General Plan Update is

consistent with State requirements that a general plan provide appropriately designated land to accommodate future housing demand. The residential land use designations in the General Plan Update provide adequate housing capacity to meet the unincorporated County's Regional Housing Needs Allocation (RHNA) of 12,358 additional residential units. Therefore, the General Plan Update would result in future residential development that would result in population growth.

The General Plan Update is the land use framework for anticipated future population growth and housing demand. The General Plan Update land use plan would accommodate an increase of approximately 54 percent population growth between 2000 and 2030 as well as an increase in residential units. Therefore, the General Plan Update would result in the direct inducement of growth in the unincorporated County. The adverse environmental effects associated with this growth, such as those resulting from increased traffic and increased demands on services and utilities, have been analyzed in Chapter 2.0, Environmental Effects of the Proposed Project, of this EIR.

### 3.1.2 Employment Growth

In addition to direct growth, additional indirect growth could occur as new businesses are established or existing businesses expand, thus creating new sources of employment. Increased industrial, commercial, and residential development typically generates a secondary or indirect demand for other services, such as groceries, entertainment, and medical services that will stimulate economic activity. The development of new uses consistent with those proposed under the General Plan Update would result in this secondary demand for goods and services. In addition, economic growth would also result in additional population growth as new jobs are created and employees that fill those job positions create an increased demand for housing in the region. Both employment and population growth would be accommodated under the proposed General Plan Update through the proposed intensification of development in town centers in communities throughout the unincorporated County. Intensified town center development would be accommodated in the Alpine CPA, Central Mountain Subregion, Crest/Dehesa Subregion, Fallbrook CPA, Julian CPA, Rainbow CPA, San Dieguito CPA, and Valley Center CPA. In the North County Metro Subregion, the General Plan Update would accommodate new development in close proximity to the Buena Creek Sprinter Station. This area is currently developed with single family residences and low intensity commercial use, and implementation of the proposed General Plan Update would provide for intensified growth in this area in order to create a transit-oriented hub of higher intensity commercial and residential uses.

The General Plan Update would accommodate new commercial, industrial, and other development that would create new sources of employment and therefore result in growth inducement. In addition, employees to fill those job positions would create an increased demand for housing in the region. Additionally, proposed intensified development in the Rainbow CPA, North County Metro Subregion, San Dieguito CPA, and Valley Center CPA are located in close proximity to adjacent jurisdictions (Riverside County, City of San Marcos, Cities of Carlsbad and San Diego, and City of Escondido, respectively). The increase in employment opportunities in these unincorporated communities would potentially increase demand for housing in surrounding jurisdictions.

Generally, the majority of new development in the County, approximately 80 percent, is planned within the SDCWA boundary. This development pattern directs future growth to areas where

existing or planned infrastructure and services can support growth within or adjacent to existing communities. The majority of the proposed growth outside of the SDCWA would be more modest and reflect the development constraints of these areas, including lack of infrastructure. Growth in these areas would be focused around existing town centers and along major roadways such as I-8. The land use framework described in the Land Use Element of the General Plan Update establishes a model for development that defines communities by a village center surrounded by semi-rural or rural land. In communities inside the SDCWA boundary, higher density neighborhoods and a pedestrian-oriented commercial center would provide a focal point for commercial and civic life. Medium-density, single-family neighborhoods, as well as a broad range of commercial or industrial uses, would surround the commercial core. Semi-rural neighborhoods surrounded by greenbelts, agricultural uses, or other rural lands would be located outside the more urbanized portion of the community. This framework would avoid development of a new commercial or other economic center away from planned residential development, which would have the potential to result in unplanned residential growth. General Plan Update Policy LU-1.4 prohibits leapfrog development that is inconsistent with the land use plan and Community Development Model. Leapfrog development consists of village densities located away from established villages or outside established water and sewer service boundaries that would require new infrastructure and would develop new housing that would directly or indirectly induce growth. Policy LU-3.3 requires new large developments to establish a complete neighborhood which would include a neighborhood commercial center within easy walking distance of surrounding residences. Policy LU-11.1 encourages the location of commercial, office, and industrial development in village areas with high connectivity and accessibility from surrounding residential neighborhoods. Policies LU-11.2 and LU-11.7 require that commercial, office, and industrial development is located, scaled, and designed to be compatible with the unique character of the community and residential development. These policies require residential and commercial development to be provided consistent with, not independent of, each other. Additionally, the General Plan Update encourages communities to establish an urban limit line and/or village boundary when updating community plans to define a community-specific growth boundary. Therefore, although the General Plan Update would result in growth inducement due to increased employment opportunities, the General Plan Update land use framework, as well as policies identified in the Land Use Element, would guide development under the General Plan Update so that employment opportunities and associated housing demand would be developed consistent with each other.

## 3.1.3 Removing Obstacles to Growth

### *3.1.3.1 Physical Obstacles to Growth*

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing impact. A physical obstacle to growth typically involves the lack of public service infrastructure. The General Plan Update would trigger growth if it would result in infrastructure with excess capacity, or, if it would remove an obstacle to growth in an area, such as providing infrastructure that was previously not available. Implementation of the proposed General Plan Update would allow for the development of land uses that would ultimately require the extension of roadways, sewer, water, and energy services throughout the unincorporated County. As described in Section 1.7.1.3, the Mobility Element identifies a road network consistent with buildout of the General Plan Update land use framework. The Mobility Element road network map includes County roads and State highways in the unincorporated County that form the backbone of a regional network providing movement within and between communities. Under

the proposed General Plan Update, approximately 835 additional lane miles of road are proposed to support buildout of the proposed land use map. In addition, some existing roadways would be upgraded to support population growth. Communities proposed for major road improvements include the Fallbrook CPA, Bonsall CPA, Valley Center CPA, North County Metro Subregion, San Dieguito CPA, Ramona CPA, Lakeside CPA, Crest/Dehesa Subregion, Valle de Oro CPA, Spring Valley CPA, Otay CPA, and Jamul/Dulzura Subregion. Additionally, new roadways or roadway extensions are proposed to connect growing communities, such as the Foothill Tollway in the northern area of the Pendleton/De Luz CPA. The extension of public services infrastructure, including roadways, water mains, and sewer lines, into areas of the unincorporated County that are not currently provided with these services would support new development. Upgrades in infrastructure in the unincorporated County have the potential to also remove an obstacle to growth in surrounding jurisdictions. For example, the proposed Foothill Tollway in the Pendleton/De Luz Subregion would extend into Orange County and has the potential to indirectly induce growth in Orange County if development was previously constrained by lack of accessibility.

Increased road access and infrastructure, such as water and sewer service, would occur under the General Plan Update; however, this type of development would be limited in the rural areas of the County to be consistent with the natural and human-made environment, as described in the other environmental topic sections in Chapter 2.0. As described above, major roadway improvements and new roadways are proposed primarily in areas west of the SDCWA boundary because growth would be concentrated in these areas. Water service and sewer service infrastructure also currently exist in this portion of the unincorporated County, making expansion and improvements to infrastructure feasible in these areas. By giving priority to development within areas identified for urban village residential densities, the General Plan Update would avoid inducement of growth in the rural areas of the unincorporated County. Environmental constraints such as rugged topography make provision of infrastructure difficult in rural areas. In addition, much of the area east of the SDCWA boundary would remain dependent on groundwater and septic systems, which limit future growth. Development accommodated by General Plan Update in the semi-rural and rural areas focuses development in and around existing unincorporated community town centers which allows the County to maximize existing infrastructure, provide for efficient service delivery, and strengthen town center areas while preserving the rural landscape. Improvements or expansion of infrastructure in any part of the unincorporated County would remove an existing obstacle to growth and induce population growth, although it would have a greater impact in rural eastern areas of the County.

The existing infrastructure in the unincorporated County is not adequate to support the growth accommodated under the General Plan Update and therefore presents an obstacle to growth. The General Plan Update includes goals and policies that would ensure that road improvements and extensions included in the proposed Mobility Element Roadway, and development of new public services and infrastructure, are provided consistent with development accommodated by the General Plan Update land use framework. Policy H-1.3 encourages the development of housing in areas served by transportation networks, within close proximity to job centers, and where public services and infrastructure are available. Policy LU-9.4 prioritizes infrastructure improvements and the provision of public facilities for villages and community cores, consistent with the intensity of development allowed by the proposed land use map. This policy avoids providing more infrastructure than is necessary to accommodate planned growth. Policy LU-12.1 requires the provision of infrastructure, facilities, and services concurrent with new development. Providing infrastructure concurrent with development instead of prior to development allows for the appropriate amount of infrastructure to be provided. Policy LU-14.4

prohibits the extension of sewer facilities outside of village boundaries which would have the potential to induce unplanned growth and be inconsistent with the General Plan Update. Although the General Plan Update provides a framework for infrastructure that would minimize unplanned growth, new and expanded infrastructure would support planned growth proposed by the General Plan Update. Therefore, the proposed project would remove an existing obstacle to growth in order to accommodate new development that would induce population growth in the region.

### *3.1.3.2 Regulatory Obstacles to Growth*

The elimination or change in regulatory processes, including existing plans, policies and ordinances, would potentially result in the removal of restrictions to growth, which would allow for new or increased population growth to occur. The General Plan Update includes the revision and/or deletion of some existing County plans, policies and regulations in an effort to streamline development and permitting processes so that the densities accommodated by the General Plan Update can be achieved. The effect of these regulatory changes would result in the removal of obstacles to growth. A discussion of the planning and regulatory components that would be revised to be consistent with the General Plan Update is provided in Section 1.8, Other Project Components. These components include community plan updates, specific plan changes, agricultural preserve modifications and deletions, and a number of ordinance revisions including the RPO, Groundwater Ordinance, Subdivision Ordinance, and Zoning Ordinance. Changes to these plans, policies and regulations would have the potential to remove an obstacle to growth in the unincorporated County. For example, as discussed in Section 1.8.5, the RPO would be amended to allow some additional flexibility in project design while still protecting significant natural resources. Another example, as discussed in Section 1.8.4, would be the removal of a building moratorium associated with GPA 92-01 in certain areas of the Central Mountain Subregion. Both of these examples would have the effect of removing an obstacle to growth. While removal of these regulatory obstacles may induce growth in some areas compared to growth that would be allowed under existing regulatory processes, new growth would be consistent with the General Plan Update and would not be unplanned growth.

## 3.1.4 Environmental Impacts of Population Growth

As described above, the proposed General Plan Update would be considered growth-inducing because it would accommodate new residential development that would result in direct inducement of population growth, and an increase employment opportunities and removal of obstacles to growth that would indirectly induce population growth in the region. Therefore, the proposed project would have the potential to result in adverse physical environmental effects due to population growth. The General Plan Update proposes land use designations that would accommodate future population growth; therefore, the effects of population growth within the unincorporated County are the direct and cumulative impacts of the proposed project, and are addressed in Sections 2.1 through 2.17 of this EIR. Environmental impacts of the proposed project were evaluated and significant impacts were identified and mitigated to the extent feasible. Any direct and cumulative impacts that would not be mitigated to below a level of significance are identified below in Section 3.3, Significant and Unavoidable Impacts.

## 3.2 Significant Irreversible Environmental Changes

CEQA Sections 21100(b) (2) and 21100.1(a) require that EIRs prepared for the adoption of a plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes of project implementation. Section 15126.2(c) of the CEQA Guidelines describes significant irreversible environmental changes that would be caused by a proposed project as:

> Uses of nonrenewable resources during the initial and continued phases of a project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

1. The primary and secondary impacts would generally commit future generations to similar uses;
2. The project would involve a large commitment of nonrenewable resources;
3. The project involves uses in which irreversible damage would result from any potential environmental accidents associated with the project; or
4. The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Implementation of the proposed General Plan Update would accommodate future development that would result in the conversion of presently undeveloped land to residential, commercial, industrial, office, public and recreational uses. Development consistent with the General Plan Update would constitute a long-term commitment to these land uses. Additionally, irreversible changes would likely occur due to future excavation, grading, and construction activities associated with future land uses consistent with the General Plan Update. Although the environmental impacts of these changes can generally be addressed by mitigation measures, the potential for disturbance would represent an irreversible change. Restoration of the region to pre-developed conditions would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment.

Renewable, nonrenewable, and limited resources that would likely be consumed as part of future development consistent with the General Plan Update would include, but are not limited to oil, gasoline, lumber, construction aggregates, asphalt, surface water and groundwater, energy, steel, and similar materials. Development of land uses consistent with the General Plan Update would require the consumption of lumber, aggregates, asphalt, steel, and other construction materials. Both construction and operation of land uses would require the consumption of oil, gasoline, water, and energy. For example, construction equipment would require oil and gasoline for operation, and residents of new housing units in the County would consume energy and water during daily activities.

In addition, development of the proposed project would result in increased demand on public services and utilities (see Section 2.13, Public Services, and Section 2.16, Utilities and Service Systems). This increased demand would require expansion of infrastructure that would result in irreversible conversion of land similar to other development types and would also result in the permanent commitment of resources such as water and energy by making these resources available to more consumers. The proposed project would also result in significant unavoidable effects related to air emissions (see Section 2.3, Air Quality). Long-term impacts would also result from an increase in vehicular traffic, and associated noise emissions (see Section 2.15, Traffic, and Section 2.11, Noise). Additional development that would occur under the proposed project could result in the loss of significant historical resources (see Section 2.5, Cultural Resources) or important farmland (see Section 2.2, Agriculture Resources) as land containing these resources is converted to other land uses. Additionally, besides increasing consumption of mineral resources for development, new development has the potential to make mineral resource deposits unavailable for future extraction by placing structures on top of resources or by developing land uses that would be incompatible with extraction operations in the vicinity of known mineral deposits (see Section 2.10, Mineral Resources).

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the proposed project. As described in Section 2.7, Hazards and Hazardous Materials, implementation of the General Plan Update would allow for the development of land uses, such as industrial buildings, that commonly store, use, and dispose of hazardous materials. Additionally, industries and businesses using hazardous materials may expand or increase to accommodate the projected population growth under implementation of the General Plan Update. Compliance with applicable federal, State and local hazardous materials regulations such as the Chemical Accident Prevention Provision, Emergency Planning and Community Right-to-Know Act, the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the California Health and Safety Code, California Code of Regulations Title 23, the Aboveground Petroleum Storage Act, California Accidental Release Prevention Program, the California Emergency Services Act, and the County Consolidated Fire Code would ensure that the proposed project would not result in irreversible environmental damage related to the accidental release of hazardous materials.

## 3.3 Significant and Unavoidable Impacts

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects. Specifically, Section 15126.2(b) states:

> "Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described."

Significant, unavoidable adverse impacts were identified for several environmental issues in Chapter 2.0. These impacts and their implications are described in greater detail in their respective section in Chapter 2.0. Despite these unavoidable effects, a comprehensive update to the County's General Plan is still being proposed because the existing General Plan is based on outdated information and is, therefore, not considered to be a sound basis for current land use decisions. Additional reasons for supporting a comprehensive update to the County's

General Plan, including project objectives, are provided in Chapter 1.0, Project Description. The following is a summary of the significant and unavoidable impacts that would result from the proposed project:

- **Aesthetics**

  - **Issue 3 – Visual Character or Quality:** Implementation of the General Plan Update would accommodate intensified development, especially in town centers, which has the potential to result in the degradation of, or substantial change in, the existing visual character or quality of communities throughout the unincorporated County. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to visual character and quality, but not to below a level of significance.

  - **Issue 4 – Light or Glare:** The proposed General Plan Update would have the potential to result in increased light within the County that would adversely affect day or nighttime views. The proposed General Plan Update policies and mitigation measures would reduce direct impacts associated with increased light, but not to below a level of significance.

  - **Cumulative Impact – Visual Character or Quality:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with visual character and quality. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to visual character and quality, but not to below a level of significance.

  - **Cumulative Impact – Light or Glare:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with increased light. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to nighttime lighting, but not to below a level of significance.

- **Agricultural Resources**

  - **Issue 1 – Conversion of Farmland:** Implementation of the proposed General Plan Update would result in the direct conversion of 4,782 acres of agricultural resources to non-agricultural land uses. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to conversion of farmland, but not to below a level of significance.

  - **Issue 3 – Indirect Conversion of Farmland:** Implementation of the General Plan Update would redirect high density growth into areas containing agricultural resources and potentially cause some indirect conversion of agricultural resources to non-agricultural use because of incompatibility between development accommodated by the General Plan Update and existing agricultural activity. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to indirect conversion of farmland, but not to below a level of significance.

  - **Cumulative Impact – Conversion of Farmland:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with the conversion of farmland to non-agricultural use. The proposed

General Plan Update policies and mitigation measures would reduce cumulative impacts to conversion of farmland, but not to below a level of significance.

- **Cumulative Impact – Indirect Conversion of Farmland:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with the indirect conversion of farmland to non-agricultural use. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to indirect conversion of farmland, but not to below a level of significance.

- **Air Quality**

  - **Issue 2 – Air Quality Violations:** The proposed General Plan Update would have the potential to result in a significant violation of an air quality standard because emissions of criteria pollutants associated with new residential, commercial, and industrial development consistent with the General Plan Update would exceed the screening-level thresholds for air pollutants. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to air quality violations, but not to below a level of significance.

  - **Issue 3 – Non-Attainment Criteria Pollutants:** The proposed General Plan Update would have the potential to result in a direct cumulatively considerable net increase in pollutants for which the SDAB is listed as non-attainment. The SDAB is considered a nonattainment area for ozone and respirable particulate matter. The proposed General Plan Update policies and mitigation measures would reduce direct impacts related to non-attainment criteria pollutants, but not to below a level of significance.

  - **Issue 4 – Sensitive Receptors:** The proposed General Plan Update would have the potential to result in exposure of sensitive receptors to diesel particulate matter. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to sensitive receptors, but not to below a level of significance.

  - **Cumulative Impact – Air Quality Violations:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with the violation of air quality standards. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts related to air quality violations, but not to below a level of significance.

  - **Cumulative Impact – Non-Attainment Criteria Pollutants:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with non-attainment of criteria pollutants (specifically $0_3$, $PM_{10}$ and $PM_{2.5}$). The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts related to non-attainment criteria pollutants, but not to below a level of significance.

  - **Cumulative Impact – Sensitive Receptors:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with air quality (diesel emissions) impacts to sensitive receptors. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to sensitive receptors, but not to below a level of significance.

- **Biological Resources**

  - **Issue 1 – Special Status Plant and Wildlife Species:** The General Plan Update would have the potential to result in significant impacts to special status species and their habitats. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to special status species, but not to below a level of significance.

  - **Issue 2 – Riparian Habitat and Other Sensitive Natural Communities:** The General Plan Update would have the potential to result in significant impacts to riparian habitat and other sensitive natural communities. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to riparian and other sensitive habitats, but not to below a level of significance.

  - **Issue 3 – Wildlife Movement Corridors and Nursery Sites:** The General Plan Update would have the potential to result in significant impacts to wildlife movement corridors and nursery sites. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to wildlife corridors and nursery sites, but not to below a level of significance.

  - **Cumulative Impact – Special Status Plant and Wildlife Species:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact associated with special status species until a comprehensive NCCP is in place for the long-term protection of special status plant and wildlife in North County and East County. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to special status species, but not to below a level of significance.

  - **Cumulative Impact – Riparian Habitat and Other Sensitive Natural Communities:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact associated with riparian habitat and other sensitive natural communities until a comprehensive NCCP is in place for the long-term protection of riparian and other sensitive habitats in North County and East County. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to riparian habitat and other sensitive natural communities, but not to below a level of significance.

  - **Cumulative Impact – Wildlife Movement Corridors and Nursery Sites:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact associated with wildlife movement corridors and nursery sites until a comprehensive NCCP is in place for the long-term protection of wildlife corridors and nursery sites in North County and East County. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to wildlife movement corridors and nursery sites, but not to below a level of significance.

- **Hazards and Hazardous Materials**

  - **Issue 8 – Wildland Fires:** Implementation of the proposed General Plan Update would result in land uses that allow residential, commercial and industrial development in areas that are prone to wildland fires. This is due to the fact that the majority of the unincorporated County is located in very high or extreme fire threat hazard areas.

Implementation of the General Plan Update would result in a potentially significant impact from the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands. The proposed General Plan Update policies and mitigation measures would reduce direct impacts related to wildland fires, but not to below a level of significance.

- **Cumulative Impact – Wildland Fires:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with loss of life and property associated with wildland fires. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to wildland fires, but not to below a level of significance.

- **Hydrology and Water Quality**

  - **Issue 1 – Water Quality Standards and Requirements:** The development of future land uses as designated in the proposed General Plan Update would contribute pollutants such as sediments, hydrocarbons and paints in quantities that would otherwise significantly degrade surface water quality. It is also anticipated that non-point source pollutants, caused from the development of future land uses as designated in the proposed General Plan Update, would otherwise degrade surface water quality. Additionally, the General Plan Update would result in potentially significant impacts to water quality from proposing land uses in groundwater dependent areas that are currently experiencing groundwater contamination. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to hydrology and water quality, but not to below a level of significance.

  - **Issue 2 – Groundwater Supplies and Recharge:** There are multiple areas in the unincorporated County that are currently experiencing groundwater supply and recharge impacts. Implementation of the General Plan Update would allow land uses and development to occur in these areas, thereby worsening an already unsustainable groundwater supply. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to groundwater supplies and recharge, but not to below a level of significance.

  - **Cumulative Impact - Water Quality Standards and Requirements:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with water quality standards and requirements. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to water quality standards and requirements, but not to below a level of significance.

  - **Cumulative Impact – Groundwater Supplies and Recharge:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with groundwater supplies and recharge. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to groundwater supplies and recharge, but not to below a level of significance.

- **Mineral Resources**

  - **Issue 1 – Mineral Resource Availability:** The General Plan Update proposes land uses in areas designated MRZ-2, MRZ-3, or those areas underlain by Quaternary alluvium that would be incompatible with these resources and would result in the loss of availability of known or suspected mineral resources that would be of value to the region and the residents of the State. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to mineral resource availability, but not to below a level of significance.

  - **Issue 2 – Mineral Resource Recovery Sites:** The General Plan Update proposes potentially incompatible land uses that would have the potential to encroach on areas where mines are active or where future resource recovery sites would have otherwise been permitted. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to mineral resource recovery sites, but not to below a level of significance.

  - **Cumulative Impact – Mineral Resource Availability:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with mineral resource availability. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to mineral resource availability, but not to below a level of significance.

  - **Cumulative Impact – Mineral Resource Recovery Sites:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with mineral resource recovery sites. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to mineral resource recovery sites, but not to below a level of significance.

- **Noise**

  - **Issue 3 – Permanent Increase in Ambient Noise Levels:** Traffic on new roadways or roadway improvements, as well as operation of new industrial facilities, agricultural operations, and other noise-generating uses under the General Plan Update would permanently increase ambient noise and would result in a potentially significant impact. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to permanent increase in ambient noise levels, but not to below a level of significance.

  - **Cumulative Impact – Permanent Increase in Ambient Noise Levels:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with permanent increases in ambient noise levels. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts associated with permanent increases in ambient noise, but not to below a level of significance.

- **Public Services**

  - **Issue 3 – School Services:** The proposed General Plan Update is projected to increase housing and population within the unincorporated County, which would result in an

increase in school enrollment. To maintain acceptable service ratios, the construction of new or expanded school facilities would be required. The construction of these facilities would have the potential to result in significant environmental impacts. However, the construction of school facilities is not under the jurisdiction of the County. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to school services, but not to below a level of significance.

- **Cumulative Impact – School Services:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with environmental effects from the construction of school facilities. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts associated with school services, but not to below a level of significance.

- **Transportation and Traffic**

  - **Issue 1 – Unincorporated County Traffic and Level of Service Standards:** Implementation of the proposed General Plan Update would result in a total of 158 deficient roadway segments throughout the unincorporated County. The 158 deficient roadway segments would result in a total of approximately 270 deficient lane miles since roadway segments often consist of multiple lanes. Therefore, with implementation of the proposed General Plan Update, a total of approximately 270 lane miles would exceed the LOS standard established by the County. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to unincorporated County traffic and LOS standards, but not to below a level of significance.

  - **Issue 2 – Adjacent Jurisdictions Traffic and Level of Service Standards:** When compared to existing conditions, implementation of the proposed General Plan Update is expected to result in 34 roadway segments in adjacent cities that would exceed the LOS standard established by the respective city. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to adjacent jurisdictions traffic and LOS standards, but not to below a level of significance.

  - **Issue 3 – Rural Road Safety:** Implementation of the proposed General Plan would result in the adoption of a Mobility Element network that includes existing roadways with horizontal and vertical curves that are sharper than existing standards. This would be considered a potential transportation hazard. Additionally, the proposed General Plan Update may pose an increased risk to pedestrians and bicyclists by increasing and/or redistributing traffic patterns. Implementation of the proposed General Plan Update would also have the potential to result in hazards from at-grade rail crossings. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to rural road safety, but not to below a level of significance.

  - **Cumulative Impact – Unincorporated County Traffic and Level of Service Standards:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with traffic and LOS in the County. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to impacts to unincorporated County traffic and LOS standards, but not to below a level of significance.

- **Cumulative Impact – Adjacent Jurisdictions Traffic and Level of Service Standards:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with traffic and LOS in adjacent cities. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to adjacent jurisdictions traffic and LOS standards, but not to below a level of significance.

- **Cumulative Impact – Rural Road Safety:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with rural road safety. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to rural road safety, but not to below a level of significance.

- **Utilities and Service Systems**

  - **Issue 4 – Adequate Water Supplies:** Implementation of the proposed General Plan Update would increase the number of housing units and populations served within the service areas of SDCWA-member water districts and groundwater dependent water districts. Although multiple planning documents exist to ensure a reliable water supply is available for future growth within the County, issues such as cutbacks in imported water and unprecedented drought years were unaccounted for in these documents. Additionally, some groundwater basins throughout the County would be impacted upon build out of the proposed General Plan Update. This would result in some groundwater dependent water districts having a potentially inadequate water supply. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to water supplies, but not to below a level of significant.

  - **Issue 6 – Sufficient Landfill Capacity:** If additional landfills are not constructed and existing landfills are not expanded, it is estimated that the County will run out of physical landfill capacity by 2016. Therefore, the development of future land uses as designated in the proposed General Plan Update would have the potential to be served by landfills with insufficient capacity to accommodate future solid waste disposal needs. The proposed General Plan Update policies and mitigation measures would reduce direct impacts to landfill capacity, but not to below a level of significance.

  - **Cumulative Impact – Adequate Water Supplies:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with adequate water supplies. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to water supplies, but not to below a level of significance.

  - **Cumulative Impact – Sufficient Landfill Capacity:** The General Plan Update would have a cumulatively considerable contribution to a significant cumulative impact in the region associated with sufficient landfill capacity. The proposed General Plan Update policies and mitigation measures would reduce cumulative impacts to landfill capacity, but not to below a level of significance.

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# CHAPTER 4.0 PROJECT ALTERNATIVES

CEQA requires in Section 15126.6 of the CEQA Guidelines that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to the proposed project or to the proposed project location that would feasibly attain most of the project objectives but would avoid or lessen any significant environmental impacts. An EIR should evaluate the environmental impacts of the alternatives compared to the proposed project. This chapter of the EIR describes and evaluates alternative land use maps and is intended to implement the requirements set forth in the CEQA Guidelines. This chapter also identifies the Environmentally Superior Map Alternative as required by CEQA Guidelines Section 15126.6(e)(2). The requirements of Section 15126.6 of the CEQA Guidelines pertaining to the alternatives analysis are summarized below.

The following discussion covers a reasonable range of feasible alternatives that focuses on avoiding or substantially lessening any significant effects of the project, even if these alternatives would not attain all of the project objectives or would be more costly, and is designed to foster meaningful public participation and informed decision-making. The discussion shall focus on alternatives to the project that are capable of meeting most of the project objectives, identified in Chapter 1.0 of this EIR. According to the CEQA Guidelines, there are many factors that may be taken into account when addressing the feasibility of alternatives, such as environmental impacts, site suitability as it pertains to various land use designations, economic viability, availability of infrastructure, regulatory limitations, and jurisdictional boundaries. Also, the alternatives analysis need not be as detailed as that conducted for the proposed project; however, this EIR includes a similar level of analysis as that provided for the proposed project for some environmental topics, such as biological resources. Additionally, a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic project objectives. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

The alternatives analysis below meets the requirements of CEQA Section 15126.6. The analysis includes sufficient information about each alternative to provide meaningful evaluation, analysis, and comparison with the proposed project. A detailed comparison and analysis of the differences between the proposed project and three project alternatives (Hybrid Map, Draft Land Use Map, and Environmentally Superior Map) is provided in Appendix L: Areas of Difference (AOD). For each AOD, Appendix L provides a general description of the location and existing conditions of the AOD, an analysis of the physical constraints on the AOD, and identifies the proposed land use designation for each alternative and the Referral Map. Additionally, for each AOD, it identifies any potential conflicts between the proposed land use designation(s) for the alternatives or the proposed project (Referral Map) and the proposed General Plan Update goals and policies; and it analyzes how well the land use designation of each land use map would fulfill the General Plan Update guiding principles.

## 4.1 Rationale for Alternative Selection

As described in Section 1.12.1, History of Project Development, in Chapter 1.0, the General Plan Update began in December 1997. County staff worked with the Board of Supervisors (BOS), an Interest Group Advisory Committee, the Planning Commission, Community Planning

and Sponsor Groups, and affected property owners to formulate the objectives that would guide the project and to develop alternatives for consideration. Through this process, population targets were established and different approaches to distributing density were considered. Potential environmental impacts were considered during this process and had a substantial effect on the draft land use maps. A key concept of the General Plan Update was that future planned densities would better reflect environmental resources and/or constraints on property. As a result, the avoidance and substantial reduction of environmental impacts is inherent in the General Plan Update.

Through the process of considering numerous strategies for the future growth of the unincorporated County, the BOS endorsed two land use maps for analysis in the EIR that best reflected the Board's desired direction: the Referral Map and the Draft Land Use Map. Overall, the Referral Map includes more growth and incorporates additional property-specific considerations that were not included in the Draft Land Use Map. The Referral Map, shown in Figure 1-3, Proposed Land Use Map, became the proposed project for the EIR because it would accommodate more development than the Draft Land Use Map, thus resulting in greater environmental impacts. This was also appropriate because the Referral Map (herein referred to as the proposed project) was created at the specific direction of the BOS. As a result, the Draft Land Use Map became an alternative to the proposed project and is evaluated as such within this chapter of the EIR.

While the BOS had endorsed two project alternatives for analysis, staff concluded that additional alternatives were needed for consideration in the EIR. As a result, the Hybrid Map and the Environmentally Superior Map were created as other alternatives for the environmental review. The Hybrid Map Alternative was developed as a balance between the Draft Land Use Map Alternative and the proposed project, and is generally less intensive than the proposed project since it would result in less environmental impacts. The primary purpose of the Hybrid Map Alternative was to represent a possible approach of blending the proposed project and Draft Land Use Map. It is likely that the BOS would wish to adopt some combination of the two endorsed alternatives and it was determined that evaluation of a hybrid map alternative would better inform decision making and support meaningful public participation.

The Environmentally Superior Map Alternative was developed as a less intensive alternative to reflect known environmental constraints with more significant density decreases than the BOS endorsed alternatives. Each of the project alternatives (Draft Land Use Map, Hybrid Map, and the Environmentally Superior Map) would accommodate less development than the proposed project, thus decreasing environmental impacts.

During the preparation of the Hybrid Map Alternative and the Environmentally Superior Map Alternative, specific attention was given to each community area and every deviation from the BOS-endorsed maps was tracked for the purpose of comparing the alternative land use maps to the proposed land use maps. A No Project Alternative is represented by the existing General Plan land use plan. These alternatives are described below and represent a reasonable range of alternatives. Table 4-1 provides a Countywide comparison of land uses between each of the project alternatives. Table 4-2 compares the land use distribution of each alternative in the individual CPAs and Subregions. Table 4-3 summarizes the environmental impacts of the project alternatives compared to the proposed project impacts. Alternatives that were considered but rejected are also described below.

### 4.1.1 Alternatives Considered but Rejected

The alternatives that can be considered for the General Plan and future growth of the unincorporated County are countless; however, as a result of a long and comprehensive public planning process for the General Plan Update, the range of alternatives that are "reasonable" for analysis has been thoroughly defined by the stakeholders and BOS and are embodied in the project objectives and the BOS endorsed alternatives. Nevertheless, for preparation of the EIR thorough consideration was given to other alternatives for inclusion. This section describes those alternatives or alternative concepts that were given consideration but rejected from further analysis in the EIR.

**Project Planning Alternatives**

During the course of the General Plan Update project, numerous variations in mapping were considered. The variations were a result of an iterative process of receiving input from stakeholders and the BOS, and refining the working maps that eventually became the BOS endorsed alternatives. While some of these previous variations would have represented the opinions of a segment of stakeholders more strongly, or would have reduced environmental impacts further than the proposed project or other alternatives considered, they were not appropriate for analysis in the EIR. They have since been refined or supplemented by the BOS endorsed alternatives. Additionally, County staff developed the Environmentally Superior Map Alternative, which incorporates further decreases in density in environmentally constrained lands which were contained within previous versions of some project maps. Therefore, the alternatives that are analyzed in this EIR were determined to provide the best scenarios to represent the different planning approaches that have been considered during the process.

**General Plan Text Alternatives**

This EIR focuses on alternative approaches to the General Plan Update land use maps, which designate the type and intensity of uses allowed on land within the County's jurisdiction. The General Plan Update also contains goals and policies that will guide decision making on land use projects. Countless variations in text of the General Plan could also be considered as part of this project. However, when it comes to the potential for physical impacts to the environment (which is the primary scope of an EIR), the land use map is the most relevant and is often reflective of the goals and policies contained within the document. Yet, alternatives to the text of the General Plan that would have the potential to avoid or substantially lessen environmental impacts were considered. Many of these possible alternatives were determined infeasible and are discussed under the individual analysis sections of Chapter 2.0 for those issues that were found to be significant and unavoidable. No other alternatives to the draft goals and policies were identified for analysis in the EIR by County staff or the project stakeholders that would significantly affect the project's environmental impacts.

**SunCal Alternative**

In response to the July 23, 2008, General Plan Update Progress Report, SunCal Companies sent a letter to the County suggesting an alternative to the proposed land use alternative maps. SunCal requested an alternative to replace the Hybrid Map that encompassed a greater density alternative, stating that the inclusion of a greater density alternative would provide an upper range of development to evaluate the efficiency of proposed mitigation measures. This

alternative was rejected because the purpose of this chapter is to identify project alternatives that would reduce significant environmental impacts identified for the proposed project (CEQA Guideline Section 15126.6(b)). The proposed project represents the greatest development intensity of the BOS endorsed land use maps and is therefore addressed in the EIR as the proposed project because it would result in the greatest environmental impact. A greater density alternative would, by its very nature, not avoid or reduce significant impacts identified for the proposed project and, therefore, would not be an appropriate project alternative. Therefore, this alternative was rejected from consideration.

**Backcountry Development Alternative**

During the NOP process, several communities expressed concern that shifting density away from the backcountry toward the western portion of the County would lead to blight in the small towns of the backcountry. Concerns were expressed by grassroots groups of residents and property owners on behalf of the communities of Campo, Lake Morena, Cameron Corners, Boulevard, and throughout the backcountry in general. The communities are generally opposed to the downzoning reflected in the General Plan Update (as compared to the existing General Plan) that shifts growth to the western portion of the County where infrastructure is available. The existing General Plan land use map is analyzed as the No Project Alternative. Therefore, an alternative that would accommodate higher intensity growth in the backcountry is analyzed and an additional alternative is unnecessary. Additionally, allowing for higher intensity growth in the backcountry does not meet five of the ten project objectives because it would: 1) produce additional burdens on infrastructure capacities since infrastructure is less available in the backcountry; 2) increase public costs by not concentrating development within the San Diego County Water Authority (SDCWA) boundary; 3) not help retain land for agriculture grazing; 4) not locate growth near infrastructure, services, and jobs; and 5) not accurately reflect the actual development capacity of the land. In reality, the higher densities designated in the backcountry under the Existing General Plan are often reduced due to environmental or other development constraints that limit development potential in many backcountry areas. The higher intensity designations do not take into consideration actual constraints to development. Therefore, higher intensity development in the backcountry would not feasibly accomplish most project objectives, nor would it reduce most environmental impacts. Therefore, this alternative was rejected from consideration.

**Casino Focused Development Alternative**

During project planning, some stakeholders expressed the opinion that the General Plan Update should include residential designations to increase housing stock near casinos to provide housing for casino employees. Casinos that are located in the north and east County regions include those located on the Viejas Reservation in the Alpine Community Planning Area (CPA); Sycuan Reservation in the Crest/Dehesa Subregional Planning Area (Subregion); Pala, La Jolla, and Rincon Reservations in the Pala/Pauma Valley Subregion; and San Pasqual Reservation in the Valley Center CPA. Under the proposed General Plan Update, semi-rural residential, village residential and commercial land use designations are located in proximity to these reservations and therefore housing would have the potential to be developed near these casinos. However, additional casinos are located in the backcountry, including the Campo and La Posta Reservations in Mountain Empire Subregion and the Pauma-Yuima and Santa Ysabel Reservations in North Mountain Subregion. Similar to the Backcountry Development Alternative described above, proposing higher residential densities near these casinos would result in higher intensity development in the backcountry, which is not feasible due to development

constraints and would not accomplish most project objectives. Therefore, this alternative was rejected from further consideration.

**Property Specific Alternatives**

The General Plan Update project contains land use designations that affect every property within the unincorporated County. Many properties are proposed to receive a designation similar to their current one, while others are proposed to be substantially modified. In some cases, different designations for specific properties are considered as part of the alternatives evaluated within this chapter. However, the list of possible designations is long and would be beyond a reasonable range of alternatives typically considered in an EIR. Additionally, while the alternatives address numerous properties, there are also many properties for which no alternatives are evaluated. Consideration was given to the need to evaluate additional properties or alternative designations. It was determined that the scope of the alternatives analysis that is contained within this chapter adequately covers the variations in property specific designations that can avoid or reduce environmental impacts.

In many cases, the alternatives that are evaluated for specific parcels were specifically directed and/or endorsed by the BOS after a complex and lengthy referral process. This process allowed for individual property owner to request specific consideration of designations for their property by staff, the Planning Commission, and the BOS. Consideration was given to every request and ultimately, the BOS decided on which referrals to include in the proposed project and which to reject.

Through the process of developing the Environmentally Superior Map, additional alternatives to specific properties and their land use designations were included in the analysis specifically to further avoid or reduce environmental impacts. Obviously, there are additional variations that can be considered; however, it was not determined necessary or reasonable to attempt to capture all of these variations in the analysis of the EIR.

Additional property-specific recommendations or referrals that are raised during the course of EIR preparation will be presented to the BOS for consideration. If the BOS determines that analysis of the additional referrals is necessary, it would direct staff to conduct additional environmental analysis at that time.

**Reduce Development/No Build Alternatives**

Environmental impacts would be further avoided and reduced by further reducing growth accommodated by the General Plan. This could be accomplished by such alternatives as lower density land use designations, development moratoriums, and building permit limitations. In some cases where any proposed new development would result in environmental impacts, a complete moratorium on future development is the only way to avoid those environmental impacts. The Hybrid Map, Draft Land Use Map, and Environmentally Superior Map Alternatives are reduced development alternatives when compared to proposed project; however, they still plan for a substantial amount of future growth. Consideration was given to additional alternatives that would further decrease planned growth. Ultimately, it was decided that it would be unreasonable to consider further reductions in planned growth because of the comprehensive planning process that lead to the range of alternatives that are considered. The alternatives that are evaluated are based on population targets that were developed by community groups and are endorsed by the BOS. Similarly, both the proposed project and

Draft Land Use Map were specifically endorsed by the BOS. An alternative that substantially deviated from the established directives for the project would provide negligible value to this process and was therefore rejected from analysis.

Within the issue specific analyses of Chapter 2.0, specific mention is made where development reductions or moratoriums would reduce or avoid significant environmental impacts.

**Board Map Roadway Network Alternative**

During the first phase of General Plan Update road network planning, three roadway network alternatives were developed to gain sufficient insight from the traffic model results for staff and planning groups to recommend a proposed Mobility Element road network: 1) Preliminary Community Preference, 2) Staff Alternative One, and 3) Staff Alternative Two. The Preliminary Community Preference alternative was developed by staff presenting traffic model forecasts to community planning and sponsor groups, and then working with each community group to identify a preliminary community preference. In some cases, communities did not identify a preference up-front but instead named alternatives they wanted staff to test during the planning process. Once a community preference network was endorsed by each planning or sponsor group, the Department of Planning and Land Use and the Department of Public Works staff identified two additional road network alternatives to test (Staff Alternatives One and Two). Alternative traffic modeling results indicated that while the Community Preference Alternative had the lowest number of roadway miles and greatest percentage of two lane roads, it also has the highest percentage of roads forecasted to have a failing level of service (LOS) E or F. At the opposite extreme, Staff Alternative Two had the greatest number of roadway miles, the greatest percentage of six-lane roadways, the lowest overall percentage of roads operating at a failing LOS, and the greatest impacts to sensitive habitat, steep topography, and existing development. Upon review of the preliminary traffic modeling results discussed above, several additional iterations of the traffic model were run and the proposed road network for the General Plan Update reflects a hybrid combination of the three alternatives.

**Full Road Network Capacity Alternative**

The Full Road Network Capacity Alternative would construct a road network with sufficient capacity to result in every segment of roadway operating at Level of Service (LOS D) or better. Appendix G (Traffic and Circulation Assessment) determined that the proposed project has 248 lane miles of State Highway and Mobility Element roads that are forecast to operate at a LOS E or F, which is considered deficient by the Mobility Element (refer to Policy M-2.1). To achieve a LOS D or better on all segments, the Mobility Element classification for these 248 lane miles of road would need to be expanded to designate wider roads with increased travel lanes. This alternative, which would require increasing the capacity of the road network, was considered but rejected because it would result in wider roads that would have the potential to significantly impact rural community character, require demolition of existing patterns of development where there is insufficient right-of-way to widen roads, impede bicycle or pedestrian safety, impact significant biological and cultural resources, such as habitat, wetlands, MSCP preserves, wildlife movement, historic landmarks, stands of mature trees, and significant archaeological sites. In areas with steep slopes where roads would need to be constructed or widened, this alternative would require massive grading and other degradation of the physical environment. In addition, widening the County Mobility Element road network would still not result in a LOS D or better on all roads in the unincorporated County, because State and interstate highways are not under the jurisdiction of the County, rather they are funded by the State (Caltrans) based on the 2030

Regional Transportation Plan (RTP). The 2030 RTP identified the necessary improvements to the regional transportation network, but determined that there were currently not sufficient funding sources to fully construct all improvements. As a result, many improvements to State facilities in the unincorporated County will remain unfunded until new sources of funding are identified. One such source of funding would be from an increase to the TransNet tax; however, this would require voter approval from County residents, both in cities as well as in the unincorporated areas. Therefore, this alternative was rejected from further consideration.

**Village Intensification Alternative**

During the General Plan Update planning process, some stakeholders asked the County to consider an alternative that further shifts a substantial amount of future growth from rural and remote semi-rural areas to village areas and semi-rural areas adjacent to villages. The goal of this alternative would be to minimize future development in agricultural areas and focus it in existing village areas. In this alternative, a greater proportion of the County's future growth would be accommodated within areas designated as village residential on the proposed land use map (densities of 2 dwelling units per acre and greater), while more land within other residential categories would be expected to remain undeveloped or as agricultural land. It is likely that much of the undeveloped or agricultural lands would contain important resources such as native biological habitat, cultural artifacts, groundwater, locally important minerals, and prime farmland/soils. Thus, this alternative would have the potential to reduce the impacts to significant natural resources. Moreover, in the backcountry, the additional buffering of these lands from development would be expected to have a localized decrease in impacts related to air quality, traffic, noise, and aesthetics because this alternative would result in less development that typically contributes to these impacts.

In addition, it is anticipated that this alternative would reduce GHG emissions generated by commuters as compared to the proposed project by creating more compact communities. However, it is unlikely that this reduction would be substantial because of two primary factors:

1. Few major employment centers lie within the unincorporated communities. No matter where future homes are located, it is likely that a high percentage of residents in the unincorporated communities will need to commute over a moderate distance to access employment.

2. The unincorporated County lacks substantial public transit service and infrastructure. Location of greater populations within the villages will likely increase some transit usage but without a regional commitment to improve service to unincorporated areas, most commuters would use their vehicles for travel.

Additionally, while this alternative would have some benefits, it would also have undesirable effects. For example this alternative would result in the intensification of residential development within the villages that would potentially result in greater impacts related to air quality, traffic, noise, and land use conflicts in those areas. Also, numerous impacts related to land use compatibility and community character were identified under this alternative resulting from the intensification of existing villages.

The principal reason for rejecting the Village Intensification Alternative was that it is outside the range of reasonable alternatives identified by the BOS. It represents a major departure from the

land use maps that were developed through substantial community and stakeholder involvement. Therefore, this alternative was rejected from further consideration.

## 4.2 Analysis of the Hybrid Map Alternative

### 4.2.1 Hybrid Map Alternative Description and Setting

The Hybrid Map Alternative, shown in Figure 4-1, strikes a balance between the proposed project and the Draft Land Use Map Alternative. It includes Regional Housing Needs Allocation (RHNA) refinements, road network land use changes, and other refinements to the proposed project, as described below. It also incorporates the proposed project changes that meet the project objectives and reflects the policy direction of the General Plan Update Elements. The Hybrid Alternative would support build-out of 68,224 residential dwelling units, or 3,000 less than the proposed project (see Table 4-7). Also as shown in Table 4-1, the Hybrid Map Alternative would decrease the Countywide acreage of the following land uses, as compared to the proposed project: village residential (-487 acres); semi-rural residential (-11,717 acres); specific plan area (-683 acres); commercial (-325 acres); and industrial (-189 acres). When compared to the proposed project, the Hybrid Map Alternative would increase the acreage of the rural land use designations (+13,672).

The Hybrid Map Alternative would result in significantly less acres of semi-rural residential land uses and significantly more acres designated for rural lands than the proposed project. Compared to the proposed project (see Table 4-2) the Community Planning Areas (CPAs) that would experience substantial increases in the rural lands designations under the Hybrid Map Alternative include Pala/Pauma Valley Subregion (+3,765 acres); North Mountain Subregion – remainder area (+3,357 acres); Valley Center CPA (+1,152 acres); San Dieguito CPA (+707 acres); and Fallbrook CPA (+305 acres). Compared to the proposed project, the CPAs that would experience substantial decreases in the semi-rural residential land use designations under the Hybrid Map Alternative include Pala/Pauma Valley Subregion (-3,764 acres); North Mountain Subregion – remainder area (-3,166 acres); North County Metro Subregion – remainder area (-2,649 acres); and Jamul/Dulzura Subregion (-359 acres).

The Hybrid Map Alternative also proposes more village residential development and less rural lands in the County Islands CPA; and less commercial and industrial land uses in the Tecate subarea of the Mountain Empire Subregion. In the Rainbow CPA, Ramona CPA, and Valley Center CPA, less area is proposed for commercial or industrial land use and more area is designated for semi-rural residential or rural lands. Additionally, the Valley Center CPA contains a specific plan area along the southern boundary of the CPA that does not have an adopted plan in place. While the proposed project would retain this designation, the Hybrid Map Alternative would designate this area as low density rural lands and semi-rural residential because, although it is located inside the SDCWA, it contains steep slopes, sensitive biological resources, and lacks services and infrastructure. Access would also be difficult because of the rugged topography and location of the site in relation to existing and future roadways. The low density rural lands designation of this alternative is consistent with other properties that are similarly constrained.

## 4.2.2 Comparison of the Effects of the Hybrid Map Alternative to the Proposed Project

### *4.2.2.1 Aesthetics*

**Scenic Vistas**

Similar to the proposed project, the Hybrid Map Alternative proposes land use designations that would result in development that would have the potential to obstruct, interrupt, or detract from scenic vistas. For example, a new housing development that is visible from a scenic vista would have the potential to interrupt the scenic expanse of open space. Additionally, if future development is inconsistent with the surrounding landscape, it would have the potential to detract from the scenic elements of a view. When compared to the proposed project, the Hybrid Map Alternative would propose lower density land uses throughout the unincorporated County, which would result in less development. Less development would potentially result in less obstructions or distractions to scenic vistas. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Scenic Resources**

Similar to the proposed project, the Hybrid Map Alternative would propose land use designations that would have the potential to result in the removal or substantial adverse change to features that contribute to the valued visual character or image of a neighborhood, community, State Scenic Highway, or localized area, including landmarks (designated) historic resources, trees, and rock outcroppings. For example, future residential or commercial development consistent with the Hybrid Map Alternative would potentially result in the removal or destruction of a scenic resource during construction or demolition activities. Additionally, if future development is inconsistent with surrounding scenic resources, it would detract from the visual quality of the resources. When compared to the proposed project, the Hybrid Map Alternative would propose lower density development throughout the unincorporated County, which would result in less development of land uses and potentially less impacts to scenic resources from construction or demolition activities. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Visual Character or Quality**

Similar to the proposed project, the Hybrid Map Alternative would have the potential to result in the degradation of the existing visual character or quality of a community by designating land uses that would result in increased development densities in some areas of the County. While most of the Hybrid Map designations would be generally compatible with existing communities, village residential and commercial land uses proposed for town centers would have the potential to result in a substantial change to the existing community character of a CPA. Additionally, development allowable under the land uses proposed in the Hybrid Map Alternative would have the potential to impact the general character of a community if it is improperly designed or located. In some cases, the Hybrid Map provides for slightly higher densities in the village centers in order to meet Housing Element requirements. These increased densities would have the potential to result in some additional community character impacts when compared to the proposed project. Similarly, in many areas the Hybrid Map would provide lower density

designations beyond the village centers when compared to the proposed project. In these instances, the lower densities would have the potential to be viewed at lessening impacts to existing community character. When compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller number of homes (approximately 3,000 fewer housing units) than the proposed project and would therefore result in less development countywide. Less development would result in a lower potential to impact the existing visual character or quality of a community. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is still unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Light or Glare**

The Hybrid Map Alternative would result in new sources of light or glare from building materials and outdoor lighting used in new residential, commercial, industrial, or public/semi-public developments allowable under its land uses. The Hybrid Map Alternative designates land uses that are generally consistent with existing land uses throughout the County and, therefore, lighting for development would be expected to be compatible with the existing setting. However, individual developments would have the potential to result in a nuisance or hazard to surrounding uses. Additionally, night lighting in the San Diego region is detrimental to astronomy research at the Palomar and Mount Laguna Observatories. When compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller number of homes (3,000 fewer housing units), which would result in less development and less potential for structures to cause substantial new sources of light or glare. Within Zone A, which represents areas that have the greatest impact on the Palomar and Mount Laguna Observatories, the Hybrid Map Alternative would accommodate approximately 634 fewer homes than the proposed project. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is still unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.2.2.2 Agricultural Resources*

**Direct Conversion of Farmland**

As shown in Table 4-4, approximately 54,384 acres of existing County agricultural resources are located in areas that would have land use designations considered a direct impact to agricultural use under the Hybrid Map Alternative. Under this alternative, approximately 4,245 acres of village residential, 49 acres of village core mixed use, 421 acres of commercial, 431 acres of industrial, and 7 acres of office professional land uses would be designated in areas with existing agricultural resources. These proposed lands use designations would likely result in direct conversion of the existing agricultural uses because these land uses would result in parcels too small for viable agriculture. Additionally, impacts were calculated for rural and semi-rural designations based on an estimate of 1.5 acres of potential impact per dwelling unit. Under the Hybrid Map, semi-rural residential uses may have up to 44,636 acres of impacts to agricultural resources, comprising 82 percent of the overall potential impact to agriculture under this alternative. Rural residential uses were estimated to result in 4,595 acres of agricultural impacts. In addition to direct losses, land use/agricultural interface issues would have the potential to occur such as dust, noise, and conflicts with pesticide use. Therefore, the Hybrid

Map Alternative would potentially result in a direct conversion of 54,384 acres of agricultural resources to non-agricultural use. When compared to the proposed project, the Hybrid Map Alternative would result in the conversion of 1,579 fewer acres of agricultural resources to non-agricultural uses. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Land-Use Conflict**

Similar to the proposed project, implementation of the proposed Hybrid Map Alternative would remove the agricultural preserve designator from any lands not currently under Williamson Act Contract. The removal of the agricultural preserve designator would potentially result in a conflict with existing Williamson Act Contracts or the provisions of the Williamson Act. This is because the Hybrid Map would remove non-contracted lands from County-adopted Agricultural Preserves and would also remove the "A" designator from these lands. By removing lands from a preserve at the boundary of a Contract area, new incompatible land uses could be developed adjacent to existing agricultural resources. Similar to the proposed project, this would be considered a potentially significant land use conflict to Williamson Act Contract lands. Implementation of the policies and mitigation measures provided in Chapter 7.0 would be required.

**Indirect Conversion of Farmland**

Similar to the proposed project, implementation of the proposed Hybrid Map Alternative would increase lower density land uses while decreasing higher density land uses. However, this alternative would place some incompatible land uses in the vicinity of surrounding agricultural resources. This creates the potential for an indirect conversion of farmland and would be considered a significant impact and mitigation would be required.

Compared to the proposed project, the Hybrid Map Alternative would reduce high and medium density land use designations countywide, including: village residential (-487 acres); semi-rural residential (-11,717 acres); and village core mixed use (-13 acres). This Alternative would also increase the low density land use designation, Rural Lands, by 13,672 acres, including, substantial increases in the Fallbrook CPA (+305 acres); North Mountain Subregion – remainder area (+3,357 acres); Pala/Pauma Valley Subregion (+3,765 acres); San Dieguito CPA (+707 acres); and Valley Center CPA (+1,152 acres). Generally, these CPAs contain large quantities of agricultural resources. When compared to the proposed project, fewer acres of incompatible land uses would be placed near agricultural resources and the potential for an indirect conversion of farmland would be reduced. Therefore, the Hybrid Map Alternative would be less likely to cause an indirect conversion of agricultural resources to non-agricultural use than the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.2.2.3 Air Quality*

**Air Quality Plans**

The current RAQS and SIP are based on projections for residential, commercial, industrial, and recreational land uses contained in the existing General Plan. Similar to the proposed project, this alternative would accommodate less growth than the existing General Plan; therefore, it would result in fewer emissions Countywide than were accounted for in the RAQS and SIP. Additionally, future development occurring under the Hybrid Map Alternative would be required to be consistent with the emission reduction strategies in the RAQS and the SIP. A significant impact would not occur. Therefore, the Hybrid Map Alternative would result in a similar impact to air quality plans as compared to the proposed project.

**Air Quality Violations**

Similar to the proposed project, new stationary sources of pollutants constructed under the Hybrid Map Alternative would be subject to the APCD's requirements for permitting and must demonstrate that they will not cause or contribute to a violation of an air quality standard. Development under the Hybrid Map Alternative would result in increased vehicle miles traveled (VMT), which would result in increased emissions that would violate air quality standards. However, the Hybrid Map would generate a total of 318,656 fewer VMT compared to the proposed project, as discussed in Section 4.2.2.15. Additionally, impacts associated with construction would be reduced under this alternative because less development would be accommodated. Therefore, the Hybrid Map Alternative would result in fewer impacts associated with air quality violations as compared to the proposed project. Nevertheless, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Non-attainment of Criteria Pollutants**

The Hybrid Map Alternative would result in new vehicle trips and construction that would result in emissions of non-attainment criteria pollutants. However, as described above in the discussion of air quality violations, the Hybrid Map Alternative would result in 318,656 fewer VMT and less construction as compared to the proposed project. Therefore, the Hybrid Map Alternative would result in fewer impacts associated with non-attainment criteria pollutants as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Sensitive Receptors**

The Hybrid Map Alternative would result in increased truck trips in the unincorporated County and use of construction equipment for new development, both of which would emit diesel particulate matter. Emissions would increase the exposure of sensitive receptors to TACs and would result in a significant impact. However, as described above in the discussion of air quality violations, the Hybrid Map Alternative would result in 318,656 fewer VMT, including truck and non-truck trips, and less construction from new development as compared to the proposed

project. Therefore, the Hybrid Map Alternative would result in fewer impacts to sensitive receptors as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Objectionable Odors**

Similar to the proposed project, odor generating land uses proposed under the Hybrid Map Alternative, including landfills, agricultural areas, wastewater treatment plants, food processing plants, chemical plants, composting, dairies, and fiberglass molding facilities would be required to comply with APCD Rule 51 and County of San Diego Code of Regulatory Ordinances Sections 63.401 and 63.402, which prohibit nuisance odors from affecting nearby receptors. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with objectionable odors.

### *4.2.2.4 Biological Resources*

**Special Status Plant and Wildlife Species**

The Hybrid Map Alternative would have the potential to result in direct and/or indirect impacts to special status plant and wildlife species and their habitat from the development of land uses proposed under this alternative. The Hybrid Map Alternative proposes 13,672 additional acres of rural land as compared to the proposed project and would decrease the acreage of the following higher density land uses, as compared to the proposed project, by a total of 13,414 acres: village residential (-487 acres), semi-rural residential (-11,717 acres), specific plan area (-683 acres), commercial (-325 acres), industrial (-189 acres), and village core mixed use (-13 acres). Rural land use would have fewer direct impacts on sensitive species because it is associated with larger lots that would not be fully impacted by residential development, unlike the smaller lots associated with village and semi-residential development and other land uses. Rural residential development was estimated to result in impacts to approximately five acres of vegetation for each dwelling unit. Lot sizes can be up to one dwelling unit per 20 acres in areas designated for rural land use. Therefore, a 20-acre site having five acres of habitat impacts due to residential development would only impact 25 percent of the site, as compared to an estimated 75 percent to 100 percent impacts to vegetation in areas designated for other land uses.

As shown in Table 4-8, this alternative would result in an estimated 157,139 acres of direct impacts to habitats that would have the potential to support special status plant and wildlife species, compared to 174,638 acres under the proposed project (DPLU GIS 2008). The most substantial reductions in direct impacts to habitat would occur for chaparral (5,981 acres), coastal sage scrub (2,348 acres), red shank chaparral (1,610 acres), Engelmann oak woodland (1,263 acres), and coast live oak woodland (1,178 acres). Additionally, this alternative would result in fewer indirect impacts to special status species because it would accommodate fewer commercial, industrial, and high density residential land uses, which are associated with intensive nighttime lighting and noise, both of which can adversely affect wildlife species. Therefore, as compared to the proposed project, the Hybrid Map Alternative would result in fewer impacts to special status plant and wildlife species. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is

unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable.

**Riparian Habitat and Other Sensitive Natural Communities**

Future development of land uses proposed under the Hybrid Map Alternative has the potential to result in the direct loss of riparian habitat and other sensitive natural communities by the removal or destruction of such habitat for new development or infrastructure. Potential indirect impacts include adverse effects to water quality in riparian habitat from pollutants in runoff and sedimentation during construction, and fugitive dust produced by construction that would have the potential to disperse onto sensitive vegetation adjacent to construction sites. As described above and shown in Table 4-8, this alternative would result in 157,139 acres of direct impacts to habitats that would have the potential to support special status plant and wildlife species, compared to 174,638 acres under the proposed project because the Hybrid Map Alternative would accommodate less development than the proposed project. The Hybrid Map Alternative proposes land uses that would have the potential to impact approximately 9,514 acres of riparian habitat, compared to 10,131 acres under the proposed project. Therefore, when compared to the proposed project, the Hybrid Map Alternative would result in fewer direct and indirect impacts to riparian habitat and other sensitive natural communities. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable.

**Federally Protected Wetlands**

Impacts to federally protected wetlands from development under the Hybrid Map Alternative would involve actions such as direct removal, filling, hydrological interruption, or other destructive modifications associated with new development and infrastructure. Approximately 1,752 acres of federally protected wetlands would have the potential to be impacted by development under the Hybrid Map Alternative. Compared to the proposed project, the Hybrid Map Alternative would impact approximately 89 fewer acres of federally protected wetland habitat. Therefore, the Hybrid Map Alternative would result in fewer impacts to federally protected wetlands as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Wildlife Movement Corridors and Nursery Sites**

The Hybrid Map Alternative would have the potential to result in impacts to wildlife movement corridors and the use of native wildlife nursery sites from the development of land uses proposed under this alternative. As described above, this alternative would result in potentially significant direct and indirect impacts to sensitive habitats, including habitats that currently function as a wildlife movement corridor or a nursery site. The Hybrid Map Alternative would result in fewer direct and indirect impacts to vegetation because it proposes lower density development, which would result in fewer impacts to habitat, as compared to the proposed project. Therefore, the Hybrid Map would also result in a reduced impact to wildlife movement corridors and nursery sites as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable.

**Local Policies and Ordinances**

Future development under the proposed Hybrid Map Alternative would not conflict with programs and ordinances that protect biological resources, because, in order for future proposed discretionary projects to be approved and developed, projects would be required to comply with the adopted Multiple Species Conservation Program (MSCP) Subarea Plan, Biological Mitigation Ordinance, Habitat Loss Permit Ordinance, the Southern California Coastal Sage Scrub Natural Community Conservation Plan (NCCP) Process Guidelines, and the Resource Protection Ordinance. County and public projects such as infrastructure improvements are also subject to local policies and ordinances. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with conflicts with local policies and ordinances.

**Habitat Conservation Plans (HCP) and NCCPs**

The MSCP and the Coastal Sage Scrub NCCP Process Guidelines are the applicable HCPs for the unincorporated County. As described above in the discussion of local policies and ordinances, future development of land uses proposed under the Hybrid Map Alternative would be required to demonstrate compliance with the MSCP, Coastal Sage Scrub NCCP Process Guidelines, or any other NCCP or HCP adopted for a particular project site. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with HCPs or NCCPs.

### *4.2.2.5 Cultural Resources*

**Historical Resources**

Similar to the proposed project, designated and potentially significant historical resources would have the potential to be disturbed as a result of Hybrid Map Alternative due to demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment of designated land uses. The Hybrid Map Alternative would also result in an increase in development intensity in the County which would have the potential to adversely affect historical sites though the introduction of visual, audible, or atmospheric effects that are out of character with the historical resource. In addition, this alternative would have the potential to also result in redevelopment of a historical structure or site that is not compatible with the authenticity of a resource and would substantially alter its significance. When compared to the proposed project, the Hybrid Map Alternative proposes lower development intensity and therefore would result in reduced impacts. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Archaeological Resources**

Similar to the proposed project, development of land uses under the Hybrid Map Alternative would have the potential to result in an adverse change in the significance of archaeological resources through ground-disturbing activities, such as excavation and grading, that have the potential to damage or destroy archaeological resources that may be present on or below the ground surface, particularly in areas that have not previously been developed. Higher density land uses are more likely to result in development that requires extensive excavation or grading activities. Therefore, areas designated as village residential, commercial, or industrial land uses

would be likely to result in more construction activities that involve excavation or grading activities than other land uses and would, therefore, be more likely to result in impacts to archaeological resources. Compared to the proposed project, the Hybrid Map Alternative would decrease the overall acreage of high density land use designations including village residential (-487 acres), commercial (-325 acres), and industrial (-189 acres) while increasing the low density rural lands designation by 13,672 acres. The Hybrid Map Alternative would result in fewer impacts to archaeological resources than the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Paleontological Resources**

Similar to the proposed project, activities resulting from implementation of the Hybrid Map Alternative, especially construction-related and earth-disturbing actions, would have the potential to damage or destroy fossils in the underlying rock units. Loss or alteration of paleontological resources would have the potential to result in an irreversible loss of significant information. High density land uses are more likely to result in development that requires extensive excavation and would have the potential to result in impacts to paleontological resources. Compared to the proposed project, the Hybrid Map Alternative proposes a reduction in high density land uses, while proposing an increase in low density land uses. Implementation of the Hybrid Map Alternative would result in fewer impacts to paleontological resources than the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Human Remains**

As discussed above, the Hybrid Map Alternative has the potential to impact archaeological resources which are often associated with human remains. When compared to the proposed project, this alternative would accommodate less development and result in reduced ground-disturbing impacts which have the potential to disturb human remains. Impacts would be reduced as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.2.2.6 Geology and Soils*

**Exposure to Seismic Related Hazards**

The Hybrid Map Alternative would designate land uses that would allow for development in areas with geological risks such as seismically induced ground shaking, liquefaction, and landslides. However, all future development would be required to comply with all relevant federal, state, and local regulations and building standards, including the California Building Code (CBC) and the County required geotechnical reconnaissance reports and investigations. Similar to the proposed project, impacts associated with exposure to seismic-related hazards would not be considered significant.

**Soil Erosion or Topsoil Loss**

Implementation of the Hybrid Map Alternative would allow development of land uses that would result in construction and operational activities that would have the potential to expose topsoil to erosion from water or wind. Similar to the proposed project, construction occurring under the

Hybrid Map Alternative would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program, which requires stormwater pollution prevention plans (SWPPPs) to be prepared and best management practices (BMPs) to be identified for construction sites greater than one acre. All construction activities occurring under the Hybrid Map Alternative would be required to comply with the CBC and the County Grading Ordinance, both of which would ensure implementation of appropriate measures during grading and construction activities to reduce soil erosion. The County Grading Ordinance also requires all clearing and grading to be carried out with dust control measures. A significant impact would not occur. Therefore, the Hybrid Map Alternative would result in a similar impact to soil erosion or topsoil loss as compared to the proposed project.

**Soil Stability**

The Hybrid Map Alternative would have the potential to result in hazards associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Similar to the proposed project, all future development associated with the land uses designated under the Hybrid Map Alternative would be required to comply with federal, state, and local building standards and regulations, including the CBC and County-required geotechnical reconnaissance reports and investigations. Compliance with these regulations would ensure that impacts associated with soil stability are less than significant. Therefore, the Hybrid Map Alternative would result in a similar impact to soil stability as compared to the proposed project.

**Expansive Soils**

The Hybrid Map Alternative would designate land uses that would allow for the development of structures on potentially expansive soils. Therefore, future construction projects consistent with the Hybrid Map Alternative would have the potential to be affected by expansive soils. Similar to the proposed project, all future projects would be required to comply with all applicable federal, state, and local regulations, including the Uniform Building Code (UBC), CBC, and subsequent construction standards. Compliance with such regulations would ensure that potential impacts are less than significant. Therefore, the Hybrid Map Alternative would result in a similar impact to expansive soils as compared to the proposed project.

**Waste Water Disposal Systems**

Implementation of the Hybrid Map Alternative would allow development of designated land uses in areas where soils are incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. Similar to the proposed project, all future development projects would be required to comply with all applicable federal, state, and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would ensure that impacts related to septic systems are less than significant. Therefore, the Hybrid Map Alternative would result in a similar impact to waster water disposal systems as compared to the proposed project.

### *4.2.2.7 Hazards and Hazardous Materials*

**Transportation, Use, and Disposal of Hazardous Materials**

Implementation of the Hybrid Map Alternative would allow development of designated land uses that involve the use, disposal, or transport of hazardous materials. Although hazardous materials can be found in all land use designations, those that are more likely to regularly use hazardous materials include limited impact industrial, medium impact industrial, high impact industrial, general commercial, and rural commercial. Similar to the proposed project, any future development of land uses, as designated under the Hybrid Map Alternative, would be required to comply with all applicable federal, state, and local regulations pertaining to the transportation, use, and disposal of hazardous materials. Compliance with existing regulations would keep impacts related to the transportation, use, and disposal of hazardous materials to a level less than significant. When compared to the proposed project, the Hybrid Map Alternative would reduce industrial land uses by 189 acres and commercial land uses by 325 acres, which are the land uses most likely to regularly use hazardous materials. Similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact.

**Accidental Release of Hazardous Materials**

The Hybrid Map Alternative proposes land uses that commonly store, use, and dispose of hazardous materials, including limited impact industrial, medium impact industrial, and high impact industrial uses. Additionally, existing industries and businesses that use hazardous materials would have the potential to expand or increase to accommodate the anticipated growth under the Hybrid Map Alternative. Similar to the proposed project, development of all future land uses consistent with the Hybrid Map Alternative would be required to comply with applicable federal, state, and local regulations related to the transportation, use, and disposal of hazardous materials. Compliance with existing regulations would keep impacts related to accidental release of hazardous materials to a level less than significant. Therefore, the Hybrid Map Alternative would result in a similar impact regarding accidental release of hazardous materials as compared to the proposed project.

**Hazards to Schools**

The Hybrid Map Alternative proposes land uses that have a high potential for hazardous materials usage, such as industrial and commercial uses, to be located within one-quarter mile of an existing or proposed school or daycare. Similar to the proposed project, compliance with federal and State regulations pertaining to hazardous materials would ensure that risks associated with hazardous emissions near schools would be kept to below a level of significance. Therefore, the Hybrid Map Alternative would result in a similar impact associated with hazards to schools as compared to the proposed project.

**Existing Hazardous Material Site**

Under the Hybrid Map Alternative, development of designated land uses may be located on sites that would have the potential to create significant hazards to the public or environment, such as those pursuant to Government Code 65962.5; burn dump sites; active, abandoned, or closed landfills; FUDS; areas with historic or current agriculture; or areas with petroleum contamination. Similar to the proposed project, all future development of land uses under the

Hybrid Map Alternative would be required to comply with existing federal, state, and local regulations related to existing on-site hazardous materials contamination. Compliance with applicable regulations pertaining to existing hazardous materials contamination would keep impacts to a less than significant level. Therefore, the Hybrid Map Alternative would result in a similar impact associated with existing hazardous material sites as compared to the proposed project.

**Public Airports**

Under the Hybrid Map Alternative, some public airports would have the potential to be located adjacent to land uses, such as village residential, which would maintain higher density populations and therefore be considered potentially incompatible. Although development of land uses proposed under the Hybrid Map Alternative would be required to comply with any applicable Airport Land Use Compatibility Plans, development within the Airport Influence Area (AIA) of a public airport would have the potential to increase the risk of people living or working in these areas to hazards associated with airport operations. Compared to the proposed project, the Hybrid Map Alternative would have lower density development and would accommodate a smaller population (3,000 fewer residential units), which would result in a reduced risk to people living or working in areas associated with airport operation hazards. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Private Airports**

Implementation of the Hybrid Map Alternative would result in land use designations that allow development within two miles of a private airport. Therefore, the Hybrid Map Alternative would have the potential to result in a safety hazard for people residing or working in the vicinity of private airport. Compared to the proposed project, the Hybrid Map Alternative would have lower density development and would accommodate a smaller population (3,000 fewer housing units), which would result in a reduced risk to people living or working in areas associated with airport operation hazards. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Emergency Response and Evacuation Plans**

Similar to the proposed project, construction activities associated with development occurring under the Hybrid Map Alternative would have the potential to interfere with adopted emergency plans and procedures if authorities are not properly notified or multiple roadways used for emergency routes are concurrently blocked. Additionally, the Hybrid Map Alternative would accommodate projected population growth in areas that differ from existing conditions. There is a potential that the existing emergency response and evacuation plans that serve the County in the event of an emergency do not account for this relocation of growth. This could cause an inadvertent impairment to the existing emergency response plans and policies, which would result in a loss of life and/or property in the event of an emergency. Compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller population (3,000 fewer residential units), which would result in less development with the potential to impair emergency response and evacuation plans. Therefore, impacts would be lessened as compared to the

proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Wildland Fires**

The Hybrid Map Alternative includes land uses that allow residential, commercial, and industrial development in areas that are prone to wildland fires and would, therefore, have the potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands. When compared to the proposed project, the Hybrid Map Alternative would have lower density development and would accommodate less population growth (3,000 fewer residential units), which would result in a reduced risk to people living or working in areas subject to wildfire risk. Additionally, when compared to the proposed project, the Hybrid Map Alternative specifically reduces land use densities in areas that are served by fire agencies with greater distance to cover (longer travel times) and in areas which have difficulty meeting fire code requirements due to limited access. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Vectors**

Given the existing regulations and processes, the Hybrid Map Alternative would not create a potentially significant hazard to the public or the environment by substantially increasing human exposure to vectors. This alternative would not result in sources of standing water bodies or other vector breeding sources such as composting or manure management facilities. As such, a significant impact would not occur. Therefore, the Hybrid Map Alternative would result in a similar impact to vectors as compared to the proposed project.

### *4.2.2.8 Hydrology and Water Quality*

**Water Quality Standards and Requirements**

**Surface Water**

Similar to the proposed project, the development of land uses under the Hybrid Map Alternative would have the potential to result in the following: 1) substantial additional sources of polluted runoff which would have short-term impacts on surface water, 2) pollutants, such as soils, debris, and other materials, in quantities that would potentially exceed water quality standards and otherwise significantly degrade water quality; and 3) non-point source pollution into surface and groundwater bodies. When compared to the proposed project, the Hybrid Map Alternative would have lower density development and would accommodate less population growth (3,000 fewer residential units), which would result in less development and less point and non-point source pollutants. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Groundwater**

The Hybrid Map Alternative has the potential to violate groundwater quality standards by designating land uses that would be groundwater dependent in areas that are currently experiencing groundwater contamination. New wells constructed to support development in these areas would be susceptible to the contaminated groundwater supply which would have the potential to result in a non-potable water supply. When compared to the proposed project, the Hybrid Map Alternative would have lower density development and would accommodate less population growth (3,000 fewer residential units), which would result in a reduced risk for groundwater contamination problems in the future. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to groundwater quality would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Groundwater Supplies and Recharge**

As discussed in the County General Plan Update Groundwater Study (DPLU 2008d), multiple areas of the unincorporated County are currently experiencing groundwater supply impacts. Similar to the proposed project, implementation of the Hybrid Map Alternative would allow land uses and development to occur in these areas, thereby worsening an unsustainable groundwater supply. Similar to the proposed project, the Hybrid Map Alternative would allow additional land uses requiring groundwater in areas already impacted by large quantity groundwater users and clustered development, designate land uses requiring groundwater in areas currently experiencing a high frequency of wells with low well yield, and result in ten groundwater basins having estimated groundwater in storage at or below 50 percent. For the above reasons, the Hybrid Map Alternative would result in a potentially significant impact to groundwater supply. When compared to the proposed project, the Hybrid Map would reduce total housing outside the SDCWA service area by 2,217 dwelling units (see Table 4-6). Therefore, the Hybrid Map would result in a lesser impact to groundwater as compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Erosion or Siltation**

Development of land uses designated in the Hybrid Map Alternative would result in the construction of new residential, commercial, and industrial buildings, roadways, agriculture, landscaping, and other features within the unincorporated County that are anticipated to result in permanent alterations to existing drainage patterns by converting areas within the County from pervious surfaces to impervious surfaces. Permanent development of impervious surfaces within the unincorporated County would increase runoff and potentially result in new erosion problems or the worsening of existing erosion problems. When compared to the proposed project, the Hybrid Map Alternative would accommodate less development and would result in reduced erosion or siltation. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Flooding**

Development of land uses designated in the Hybrid Map Alternative would have the potential to result in substantial alteration of existing drainage patterns and increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site during and after construction activities. When compared to the proposed project, the Hybrid Map Alternative proposes lower density development and would accommodate less population growth (3,000 fewer residential units), which would result in reduced alteration of existing drainage patterns and a reduced risk for flooding. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Exceed Capacity of Stormwater Systems**

Residential, commercial, and industrial land uses proposed under the Hybrid Map Alternative would increase the amount of impermeable surfaces within the unincorporated County from the development of rooftops, parking lots, roads, and driveways associated with the land uses. The development of future land uses as designated in the Hybrid Map Alternative would have the potential to contribute run-off in a manner that would exceed existing stormwater drainage facilities and require the construction of new stormwater drainage facilities. When compared to the proposed project, the Hybrid Map Alternative would have lower density development, would accommodate less population growth (3,000 fewer residential units), and would result in less development, which would reduce the potential for run-off to exceed existing stormwater drainage facilities. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Housing within a 100-year Flood Hazard Area**

Land uses designated under the Hybrid Map Alternative would have the potential to result in housing being placed within a 100-year flood hazard area. The land uses that have the highest potential to contain housing, due to residential designations, include village residential, village core mixed use, semi-rural residential, and rural residential. Table 4-5 provides the acreage of each land use type that would be located within a flood area for each alternative. When compared to the proposed project, the Hybrid Map Alternative would result in 13 fewer acres of land uses located in flood areas overall. For the Hybrid Map Alternative, County staff reduced the amount of higher density land uses located within flood areas (such as semi-rural residential, -83 acres) to lower density land uses (such as rural residential, +138 acres) as compared to the proposed project, in order to allow for greater flexibility in avoiding flood hazards. Although some land uses within flood areas increased under this alternative, they generally pose a lesser risk to the public than those proposed under the General Plan Update. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Impeding or Redirecting Flood Flows**

Land use designations under the Hybrid Map Alternative would potentially result in structures within a 100-year flood-hazard area which could impede or redirect flood flows. High density land uses designated in the Hybrid Map Alternative that would have an increased potential to

impede or redirect flood flows include village residential, village core mixed use, neighborhood commercial, general commercial, limited impact industrial, medium impact industrial, and high impact industrial. Table 4-5 identifies proposed Hybrid Map Alternative land uses that would occur within flood hazard areas. Under the Hybrid Map Alternative the following high-density designations would include areas located within a floodplain: village residential, 2,836 acres; village core mixed use, less than 1 acre; neighborhood commercial, 2 acres; general commercial, 266 acres; limited impact industrial, 160 acres; medium impact industrial, 201 acres; and high impact industrial, 71 acres. When compared to the proposed project, the Hybrid Map Alternative would result in 39 less acres of land uses with the highest potential to impede or redirect flood flows. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Dam Inundation and Flood Hazards**

Similar to the proposed project, implementation of the Hybrid Map Alternative would place housing or structures within dam inundation areas, thereby increasing the potential for a significant risk of loss, injury or death involving flooding. Impacts related to dam inundation and flooding hazard areas are based upon the land uses located within a dam inundation zone. When compared to the proposed project, the Hybrid Map Alternative does not change the land use designations within dam inundation zones. Therefore, the Hybrid Map Alternative would result in a similar impact associated with existing dam inundation and flooding. Impacts would be considered potentially significant impact and the mitigation identified in Chapter 7.0 would be required.

**Seiche, Tsunami, and Mudflow Hazards**

Due to the inland location of the unincorporated County and the history of minor tsunami events, implementation of the Hybrid Map Alternative would not expose people or structures to hazards associated with inundation by a tsunami. Implementation of the Hybrid Map Alternative would not result in land uses or development within areas subject to inundation from a seiche. A significant impact would not occur. Therefore, the Hybrid Map Alternative would result in a similar impact associated with seiche and tsunami hazards as compared to the proposed project.

Implementation of the Hybrid Map Alternative would designate land uses in areas that would be considered susceptible to mudflows. When compared to the proposed project, the Hybrid Map Alternative proposes lower density development and would accommodate a smaller population (3,000 fewer residential units), which would result in a reduced risk to people or structures being exposed to mudflow hazards. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.2.2.9 Land Use*

**Physical Division of an Established Community**

Similar to the proposed project, the Hybrid Map Alternative does not include any new railroad tracks, airports, or other features that would physically divide a community. However, future

roadway development under the Hybrid Map Alternative would result in new or improved roadways that would have the potential to physically divide an established community. There would be some reduced need for future roads or road expansions under this alternative because it would accommodate less growth. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Conflicts with Land Use Plans, Policies, and Regulations**

Similar to the proposed project, the Hybrid Map Alternative would not conflict with the following planning documents: Regional Comprehensive Plan (RCP), 2030 RTP, Congestion Management Program (CMP), San Diego Basin Plan (Basin Plan), airport land use compatibility plans (ALUCPs), RAQS, County Trails Program (CTP), spheres of influence (SOI), community plans, the County Zoning Ordinance, and specific plans. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with conflicts with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect.

**Conflicts with HCPs or NCCPs**

Similar to the proposed project, future development under the Hybrid Map Alternative would be required to demonstrate compliance with any HCP or NCCP adopted for the project area, including the MSCP in areas located within the adopted South County MSCP Subarea Plan, or the Coastal Sage Scrub NCCP Process Guidelines for projects located outside of the adopted MSCP boundary. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with conflicts with HCPs or NCCPs.

### *4.2.2.10 Mineral Resources*

**Mineral Resource Availability**

Development and growth in the unincorporated County would occur under the Hybrid Map Alternative, especially in the western portion of the County where growth would be concentrated. Because mineral resources are also concentrated in the western unincorporated areas, the loss of mineral resources availability would be unavoidable due to planned growth under the Hybrid Map Alternative. Additionally, the Hybrid Map Alternative would place residential land uses in the backcountry which would result in constraints that would make permitting new mines more difficult. Compared to the proposed project, the Hybrid Map Alternative would have lower density land uses, accommodate a smaller population (3,000 fewer residential units), and result in less development. Therefore, this alternative would result in reduced impacts compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Mineral Resource Recovery Sites**

The Hybrid Map Alternative proposes land uses that would be incompatible with mining and resource recovery operations in areas designated MRZ-2, MRZ-3, underlain by Quaternary

alluvium, or that contain or potentially contain important aggregate resources. Incompatible land uses include semi-rural residential and village residential land uses. Therefore, the Hybrid Map Alternative would allow the development of incompatible land uses in areas that potentially contain mineral resources which would result in the loss of availability of recovery sites. Under the proposed project, the majority of new development, including incompatible land uses such as village residential, is proposed in the western portion of the unincorporated County, where MRZ-2 and MRZ-3 zones have been designated. This alternative also proposes incompatible land uses in the western portion of the County; however, the lower density development accommodated under this alternative would result in fewer potential conflicts with mineral resource recovery sites. For example, the entire Fallbrook CPA has been designated as either MRZ-2 or MRZ-3. The Hybrid Map Alternative would accommodate approximately 300 fewer acres of semi-rural residential development and 300 additional acres of rural land in this CPA as compared to the proposed project, which would result in less dense development and fewer potential conflicts with mineral resource recovery sites in this CPA. Therefore, this alternative would result in reduced impacts compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.2.2.11 Noise*

**Excessive Noise Levels**

The Hybrid Map Alternative would designate land uses near noise-generating sources that would have the potential to expose people to noise levels in excess of the County's compatibility guidelines provided in Table 2.11-9, Noise Compatibility Guidelines. Compared to the proposed project, the Hybrid Map Alternative would increase the acreage of low density rural lands (+13,672). Lower density land use designations are less likely to be exposed to noise levels in excess of noise compatibility guidelines because less development would be constructed, and development would be more likely to be spaced away from noise-generating land uses due to larger lot sizes and/or more open space. Specifically, the Hybrid Map Alternative would result in more acres of rural lands than the proposed project in Fallbrook CPA (+305 acres) and Valley Center CPA (+1,152 acres), two communities identified as having the potential to expose land uses to noise in excess of noise compatibility guidelines under the proposed project. Countywide, the Hybrid Map Alternative would decrease the acreage of high-density village residential (-487 acres) and other land use designations that would have the potential to expose people to excessive noise such as semi-rural residential (-11,717 acres) and commercial (-325 acres). Therefore, the Hybrid Map Alternative would result in fewer impacts related to excessive noise levels as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Excessive Groundborne Vibration**

The Hybrid Map Alternative does not include specific development projects; therefore, it is not possible to determine exact vibration levels associated with construction of future development under this alternative. However, the majority of intensive land uses designated in the Hybrid Map Alternative, approximately 80 percent, would be located within the SDCWA boundary, or western region of the unincorporated County. Therefore, this area is more likely to be affected by ground-borne vibration and noise from construction as a result of development.

Development of infrastructure in all areas of the unincorporated County would have the potential to result in substantial groundborne vibration and noise from construction. Under the Hybrid Map Alternative, planning areas that would accommodate a substantial amount of development and thus have the potential to result in vibration from construction include Bonsall CPA, Fallbrook CPA, Lakeside CPA, North County Metro Subregion, Rainbow CPA, Ramona CPA, San Dieguito CPA, and Valley Center CPA, and Sweetwater CPA, Alpine CPA, Central Mountain Subregion, Crest/Dehesa Subregion, Julian CPA, Mountain Empire Subregion, and Desert Subregion. Valle de Oro, Spring Valley, and County Islands CPAs are relatively developed compared to the other planning areas. Therefore, these CPAs would not have the available capacity to accommodate a substantial amount of new development and would have less potential to be impacted by vibration from construction. Most of the Pendleton/De Luz CPA is encompassed by Marine Corps Base Camp Pendleton and is not under the jurisdiction of the County; therefore, the Hybrid Map Alternative does not have land uses for most of the CPA. Limited development would be accommodated in the De Luz area of the CPA; therefore impacts would be less in this area as compared to the other planning areas. The Hybrid Map Alternative would result in lower density development Countywide as compared to the proposed project. Lower density development would result in fewer impacts from construction vibration because less construction would take place, and less new vibration sensitive land uses would be constructed. Therefore, the Hybrid Map Alternative would result in fewer impacts associated with excessive vibration from construction as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Permanent Increase in Ambient Noise Levels**

Similar to the proposed project, the Hybrid Map would accommodate the development of new roadways and other noise generating land uses that would result in a significant increase in ambient noise levels. The Hybrid Map Alternative roadway network is the same as the proposed project. However, compared to the proposed project, the Hybrid Map Alternative would generally have lower density development which would be less likely to expose people to permanent increases in traffic noise because less development would be constructed, and development would be more likely to be spaced away from roads. The Hybrid Map Alternative would have 189 fewer acres of industrial land uses and 325 fewer acres of commercial land uses, which are noise generating land uses, as compared to the proposed project. Additionally, compared to the proposed project, the Hybrid Map Alternative includes more acres of low density rural lands in the Pala/Pauma Valley Subregion (+3,765 acres), North Mountain Subregion – remainder area (+3,357 acres), San Dieguito CPA (+707 acres), Fallbrook CPA (+305 acres) and Valley Center CPA (+1,152 acres). Lower density development would be less likely to expose NSLU to increased traffic noise from casinos because fewer NSLU would be constructed, and development would be more likely to be spaced away casino access roads. Therefore, this alternative would result in reduced impacts compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Temporary Increase in Ambient Noise Levels**

The majority of new development under the Hybrid Map Alternative would be planned within the SDCWA boundary, or western region of the unincorporated County. Therefore, this area is more likely to be affected by temporary increases in ambient noise from construction as a result

of development consistent with the Hybrid Alternative Map. However, construction of new development and infrastructure anywhere in the County would have the potential to result in substantial construction noise. In addition, the Hybrid Map Alternative would accommodate intensified residential and mixed-use development in town centers, which would have the potential to increase nuisance noise and associated noise complaints from neighboring uses. The Hybrid Map Alternative would result in lower density development countywide as compared to the proposed project, including more acreage of rural lands in some western areas such as Fallbrook CPA (+305 acres), San Dieguito CPA (+707 acres), and Valley Center CPA (+1,152 acres). Lower density development would result in fewer impacts from construction noise and nuisance noise because fewer land uses would be constructed and the distance between residences and other development would be increased. Therefore, this alternative would result in reduced impacts compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Excessive Noise Exposure from a Public or Private Airport**

The Hybrid Map Alternative would designate land uses in several communities (Desert Subregion, Fallbrook CPA, North Mountain Subregion, Pala/Pauma Valley Subregion, Ramona CPA, and Valley Center CPA) that would have the potential to be exposed to excessive noise from a public or private airport. As compared to the proposed project, the Hybrid Map Alternative would result in lower density development Countywide and in the areas near airports. For example, the Hybrid Map Alternative proposes substantially more rural land in Pala/Pauma Valley Subregion (+3,765 acres) and Valley Center CPA (+1,152 acres) as compared to the proposed project. Lower density development would be less likely to expose NSLU to excessive aircraft noise because fewer land uses would be constructed, and development would be more likely to be spaced away from airports. Therefore, the Hybrid Map Alternative would result in fewer impacts as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.2.2.12 Population and Housing*

**Population Growth**

The Hybrid Map Alternative would accommodate 68,224 new residential units within the unincorporated County compared to 2008 conditions. Therefore, the Hybrid Map Alternative would induce population growth in the San Diego region. However, growth under the Hybrid Map Alternative would be consistent with regional growth forecasts because SANDAG forecasts approximately 68,889 new residential units in the unincorporated County by 2030, compared to 2008 conditions. Similar to the proposed project, future development under this alternative would be required to comply with the land use plan adopted as part of the General Plan Update, which includes a land use framework and policies for growth that would avoid unplanned growth beyond regional growth forecasts. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in the direct or indirect inducement of unplanned population growth.

**Displacement of Housing**

Similar to the proposed project, new development under the Hybrid Map Alternative would have the potential to result in the displacement of existing housing. Some areas that currently contain

residences are designated for commercial or other non-residential land uses under this alternative and future construction of these non-residential land uses would have the potential to displace the existing housing. However, increases in residential density elsewhere would sufficiently replace displaced housing in the unincorporated County so that the RHNA would be accommodated. Consistent with State law, the Hybrid Map Alternative land use plan provides adequate capacity to exceed its RHNA of 12,358 new residential units by accommodating up to 68,224 new residential units; therefore, it would not necessitate the construction of replacement housing outside of the unincorporated area. Similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with the displacement of housing.

**Displacement of People**

As described above in the discussion of displacement of housing, this alternative would result in the displacement of people if existing occupied residential uses were designated for non-residential use, resulting in the displacement of people. However, similar to the proposed project, increases in residential density under the Hybrid Map Alternative would accommodate up to 68,224 new residential units, which would sufficiently provide replacement housing in the unincorporated County for people that may have been displaced. Therefore, similar to the proposed project, the Hybrid Map Alternative would not result in a significant impact associated with the displacement of people.

### *4.2.2.13 Public Services*

**Fire Protection, Police, School, and Library Services**

New development under the Hybrid Map Alternative would increase the existing demand for fire protection services, police services, school services, and library services. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, and library facilities would be required. When compared to the proposed project, the Hybrid Map Alternative would accommodate less population growth (3,000 fewer residential units) and, therefore, would result in a reduced need for fire, police, school, and library facilities to be constructed or expanded. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. After mitigation, impacts related to school facilities would remain significant and unavoidable due to the fact that the planning, approval and construction of such facilities is not within the County's jurisdiction.

### *4.2.2.14 Recreation*

**Deterioration of Parks and Recreational Facilities**

The projected population growth anticipated under the Hybrid Map Alternative would result in an increase in the number of persons that utilize recreational facilities in the unincorporated County. Similar to the proposed project, CPAs located in the western portion of the unincorporated County are more likely to experience substantial population growth from implementation of the Hybrid Map Alternative. This increase in population would result in an increased demand for recreational facilities, which would have the potential to also result in accelerated deterioration of the facilities. When compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller population (3,000 fewer residential units) as

compared to the proposed project, and therefore would result in less demand for recreational facilities and a lower potential for existing parks and recreational facilities to experience deterioration. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Construction of New Recreational Facilities**

Implementation of the Hybrid Map Alternative would continue to create a need for new or expanded recreational facilities to accommodate the anticipated population growth in the unincorporated County. The construction of any future recreational projects, including those proposed by the County Department of Parks and Recreation, would have the potential to cause additional secondary environmental effects. When compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller population (3,000 fewer residential units), would result in a lower demand for recreational facilities, and would result in a decreased need for construction of new facilities. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered potentially significant and the mitigation identified in Chapter 7.0 would be required.

## *4.2.2.15 Transportation and Traffic*

**Unincorporated County Traffic and LOS Standards**

**Proposed Roadway Network**

Within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), Table 5.13, Roadway Lane Miles by Subregion & CPA - Hybrid Map, displays lane miles proposed under the Hybrid Map Alternative by facility type (State highway, Mobility Element roads, and local public roads), as well as by Subregion and/or CPA. Implementation of the Hybrid Map Alternative would result in a roadway network that has 613.9 lane miles of State highway, 2,408.6 lane miles of County ME roads, and 702.5 lane miles of local public roads, for a total of 3,724.0 roadway lane miles. This roadway network is approximately the same as the proposed project (a difference of two lane miles).

Roadway lane miles proposed under the Hybrid Map Alternative would generally be evenly distributed between the northern communities (1,170 lane miles), southwestern communities (1,306.5 lane miles), and eastern communities (1,247.5 lane miles). CPAs that would experience the greatest number of roadway lane miles under the Hybrid Map Alternative include Desert Subregion (334.6 lane miles), North Mountain Subregion (305.7 lane miles), Mountain Empire Subregion (291.3 lane miles) and Ramona CPA (268.2 lane miles). The Hybrid Map Alternative roadway network distribution is almost identical to the proposed project. It should be noted that many of the roadway lane miles included in both the proposed project and the Hybrid Map Alternative roadway network have been previously constructed and are operating under existing conditions. Additionally, the Hybrid Map Alternative roadway network does not account for any changes that would be incorporated by the BOS to mitigate potential impacts to deficient roadway facilities. A discussion of potentially deficient facilities that would occur under the Hybrid Map Alternative and that would require mitigation is further discussed below.

### Projected Trip Generation

Within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), Table 4.1, Daily Vehicle Trip Generation, displays forecast Average Daily Trip (ADT) generation in the unincorporated portion of the County of San Diego for the existing General Plan, proposed project, and project alternatives. As shown in this table, the Hybrid Map would generate a total of 147,248 less vehicle trips than the proposed project. When compared to the proposed project, CPAs that would experience the greatest decreases in ADT from implementation of the Hybrid Map Alternative include Mountain Empire Subregion (-50,207 ADT), Valley Center CPA (-40,527 ADT); and Rainbow CPA (-25,245 ADT). When compared to the proposed project, CPAs that would experience the greatest increases in ADT from implementation of the Hybrid Map Alternative include Fallbrook CPA (+3,556 ADT); Lakeside CPA (+3,071); Spring Valley CPA (+2,363 ADT) and Valle de Oro CPA (+2,228 ADT). Overall, the Hybrid Map Alternative would result in fewer total ADTs than the proposed project.

### Projected VMT

Within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), Table 4.2, Daily Vehicle Miles of Travel, displays daily vehicle miles of travel (VMT) for the existing General Plan, proposed project, and project alternatives. As shown in the table, the Hybrid Map Alternative would result in a total of 318,658 fewer VMT than the proposed project. When compared to the proposed project, CPAs that would experience large decreases in VMT from implementation of the Hybrid Map Alternative include Mountain Empire Subregion (-108,564 VMT); Jamul/Dulzura Subregion (-72,060 VMT); and Valley Center CPA (-45,011 VMT). When compared to the proposed project, CPAs that would experience large increases in VMT from implementation of the Hybrid Map Alternative include Lakeside CPA (+6,910 VMT), Central Mountain Subregion (+5,540 VMT), Spring Valley CPA (+4,241 VMT), and Sweetwater CPA (+3,939 VMT). Under implementation of the Hybrid Map Alternative, the northwestern communities would experience more than half of all total VMT. This distribution is similar to the proposed project. Overall, the Hybrid Map Alternative would result in 25,052,233 total VMT.

### Projected Roadway Network Performance

Within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), Table 5.14, Roadway Lane Miles by LOS - Hybrid Map, displays projected performance results for the roadway network proposed under the Hybrid Map Alternative. LOS E and F are considered to be deficient facilities and subject to mitigation. Implementation of the Hybrid Map Alternative would result in 245.3 lane miles within the unincorporated County operating at an unacceptable LOS E or LOS F. Compared to the number of roadway lane miles projected to operate at a deficient level under the proposed project (270.3 lane miles), the Hybrid Map Alternative would result in 25 fewer lane miles (10 percent less) operating a deficient LOS level.

Under the Hybrid Map Alternative, a total of 132.5 roadway lane miles (approximately 18.6 lane miles of State highways and 113.9 lane miles of Mobility Element roads) would operate at a deficient LOS E. CPAs that would experience the greatest number of LOS E roadway lane miles include Fallbrook CPA (24 lane miles); San Dieguito CPA (14.7 lane miles); Ramona CPA (13.6 lane miles and Lakeside CPA (12.7 lane miles). A total of 112.8 roadway lane miles (28.4 lane miles of State highway and 84.4 lane miles of ME roads) are projected to operate at LOS F

under the Hybrid Map Alternative. CPAs that would experience the greatest number of LOS F roadway lane miles include San Dieguito CPA (23.7 lane miles), Lakeside CPA (23.7 lane miles), and Valley Center CPA (13.6 lane miles).

Under implementation of the Hybrid Map Alternative, the majority of total deficient roadway lane miles (operating at LOS E or F) are located in the northwestern and southwestern communities, with less than 5 percent located in the eastern communities. Under implementation of the proposed project, approximately half of the total deficient roadway lane miles (operating at LOS E and F) are located in the northwestern communities, with less than 10 percent located in the eastern communities.

**Deficient Facilities**

As identified in Table 5.15, Deficient Facilities by Subregion & CPA - Hybrid Map, within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), implementation of the proposed Hybrid Map Alternative would result in a total of 139 deficient roadway segments throughout the unincorporated County (approximately 25 State highway segments and 114 Mobility Element segments). Compared to the proposed project (expected to result in 158 deficient roadway segments) the Hybrid Map Alternative would have 19 fewer deficient roadway segments. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Adjacent Cities Traffic and LOS Standards**

Implementation of the Hybrid Map Alternative would likely result in multiple roadway segments in adjacent jurisdictions to exceed the LOS standard established by the applicable jurisdiction. Potential impacts to adjacent cities traffic and LOS standards were evaluated within the County of San Diego General Plan Update Traffic Impacts to Adjacent City Jurisdictions Report (Wilson and Company 2009b), included in Appendix H of this EIR. However, this report did not evaluate potential impacts to adjacent cities traffic and LOS standards for project alternatives (excluding the No Project Alternative which was evaluated). However, the results included in the County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), provide insight into potential impacts that would occur to adjacent cities under implementation of the Hybrid Map. The proposed project would result in 158 deficient roadway segments and 270 deficient roadway lane miles (see Table 5.8, Summary of Deficient Roadways - Referral Map, in Appendix G, Traffic and Circulation Assessment), while the Hybrid Map Alternative would result in 139 deficient roadway segments and 245 deficient roadway lane miles (see Table 5.16, Summary of Deficient Roadways - Hybrid Map, in Appendix G, Traffic and Circulation Assessment). When compared to the proposed project, the Hybrid Map Alternative would result in less total deficient roadway segments and less total deficient lane miles than the proposed project. The Hybrid Map Alternative would accommodate 3,000 fewer housing units than the proposed project, which would reduce the number of vehicle trips generated on local roadways from this alternative. Fewer vehicle trips would result in lesser impacts to the proposed roadway network, as is described above. Therefore, it follows that the Hybrid Map Alternative would also contribute fewer vehicle trips to adjacent jurisdictions' roadways, and would result in reduced impacts as compared to the proposed project. Therefore, it is reasonably foreseeable that impacts would be lessened as compared to the proposed project. However, impacts would still

be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Rural Road Safety**

Implementation of the Hybrid Map Alternative would result in the adoption of a Mobility Element network that includes existing roadways with horizontal and vertical curves that are sharper than existing standards. Additionally, other safety hazards, such as minimal roadway lighting, incompatibility with agricultural vehicles, and redistribution of traffic patterns that would pose increased risk to pedestrians and bicyclists would have the potential to occur under this alternative. When compared to the proposed project, the Hybrid Map would accommodate a smaller population which would translate to fewer people exposed to rural road safety hazards. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Emergency Access**

Under the Hybrid Map Alternative, existing inadequate roadway widths, dead end roads, one-way roads, and gated communities, all of which have the potential to impair emergency access, would still occur. Additionally, existing private roadways with the potential to impair emergency access would occur. When compared to the proposed project, the existing conditions that would potentially impair emergency access would remain the same. Therefore, the Hybrid Map would result in a similar impact compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Parking Capacity**

All future development, allowable under the land uses of the Hybrid Map Alternative, would be required to comply with existing County parking regulations to ensure that adequate parking facilities are available. However, the land uses under the Hybrid Map Alternative would have the potential to necessitate modification to existing County parking regulations due to the difference in location and densities of such land uses from those upon which the existing standards are based. For example, similar to the proposed project, the Hybrid Map Alternative would allow for the development of high density land uses, such as village core mixed use and village residential. While village land uses are intended to encourage pedestrian and alternative transportation, the high density development of these areas would create a potential land use conflict that may result in inadequate parking facilities being available. The construction of housing or commercial buildings within these land use designations would have the potential to prevail over the construction of parking areas due to the desirable location of housing or potential revenue associated with commercial establishments, though the demand for parking in these areas would be high. High density development may require a modification to the existing County parking regulations in order to be consistent with such regulations. The Hybrid Map would result in a similar impact compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Alternative Transportation**

Implementation of the Hybrid Map Alternative would create provisions for alternative modes of transportation, including bike lanes, bus stops, trails, and sidewalks. Although many policies proposed under the Hybrid Map Alternative would require coordination between the County and the agencies responsible for public transportation planning, the potential exists for the alternative to conflict with existing plans for alternative transportation. When compared to the proposed project, the Hybrid Map Alternative would result in a lower population and less development, with less potential for conflict with existing public transportation plans. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

## *4.2.2.16 Utilities and Service Systems*

**Wastewater Treatment Requirements**

Similar to the proposed project, the Hybrid Map Alternative would have the potential to violate wastewater treatment standards if the demand for wastewater treatment services increased at a rate disproportionate to capabilities of wastewater treatment facilities. Additionally, development in the eastern portion of the County would have the potential to result in a violation of water quality standards and wastewater discharge requirements if residences do not adequately maintain septic systems. The Hybrid Map Alternative would accommodate a lower population in the SDCWA boundary than the proposed project (1,102 fewer residential units) and would result in a reduced demand for wastewater treatment services within the SDCWA. This alternative would also result in a decreased demand for wastewater treatments services in areas dependent on septic systems (2,217 fewer residential units). Therefore, overall demand for wastewater treatment would decrease under this alternative and impacts would be lessened. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**New Water and Wastewater Facilities**

Similar to the proposed project, the development of future land uses accommodated under the Hybrid Map Alternative would result in the construction of residential, commercial, and industrial structures and would require new and expanded water and wastewater treatment facilities to meet demand. The Hybrid Map Alternative would result in a lower concentration of housing units to be located in areas with existing infrastructure, unlike the proposed project which would concentrate future growth within the SDCWA service area in an effort to locate new development near existing infrastructure. As shown in Table 4-6, when compared to the proposed project, the Hybrid Map Alternative would reduce total housing within the SDCWA service area by 1,102 dwelling units. Therefore, overall impacts related to water and wastewater treatment facilities would decrease under this alternative because demand would be lower than for the proposed project. Impacts would also still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Sufficient Stormwater Drainage Facilities**

Similar to the proposed project, the development of new residential, commercial, and industrial structures consistent with the land use designations proposed in the Hybrid Map Alternative

would increase the amount of stormwater runoff within the unincorporated County and would potentially exceed the capacity of existing stormwater drainage systems, requiring the construction of new or expanded facilities. Compared to the proposed project, the Hybrid Map Alternative would have lower density land uses which would result in less impermeable space and potentially less runoff. The reduction in impermeable surface and runoff would decrease the need for new or expanded stormwater drainage facilities to be constructed. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Adequate Water Supplies**

Implementation of the proposed Hybrid Map Alternative would increase the number of housing units and populations served within the service areas of SDCWA member water districts and groundwater dependent water districts. Although multiple planning documents exist to ensure a reliable water supply is available for future growth within the County, issues such as cutbacks in imported water and unprecedented drought years were unaccounted for in these documents. Additionally, the County Groundwater Study (DPLU 2009f) prepared to analyze potential impacts to groundwater from implementation of the General Plan Update, projects that some groundwater basins throughout the County would be impacted upon build-out of the proposed Hybrid Map Alternative. These impacts would result in some groundwater dependent water districts having a potentially inadequate water supply. As shown in Table 4-6, when compared to the proposed project, the Hybrid Map Alternative would reduce housing densities within the service area of the SDCWA by 1,102 dwelling units, and would further result in 2,218 less units outside the SDCWA. Therefore, this alternative would result in a lesser concentration of housing units occurring in areas that import water or are groundwater dependent. As such, impacts would be lessened as compared to the proposed project. Impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Adequate Wastewater Facilities**

The development of future land uses as designated in the Hybrid Map Alternative would result in the construction of residential, commercial, and industrial structures throughout the unincorporated County, which would increase wastewater treatment demand compared to existing conditions. However, compared to the proposed project, this alternative would result in lower density development throughout the unincorporated County. The proposed project would have the potential to result in inadequate wastewater treatment facilities within the SDCWA boundary. As shown in Table 4-6, when compared to the proposed project, the Hybrid Map Alternative would reduce housing within the SDCWA member agency service area by 1,102 dwelling units. Therefore, impacts related to adequate wastewater facilities would be reduced under this alternative because demand for wastewater facilities within the SDCWA boundary would be lessened. This alternative would also decrease impacts to wastewater service providers outside of the SDCWA boundaries and impacts to areas dependent on septic systems because this alternative proposes 2,217 fewer residential units outside the SDCWA boundary. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Sufficient Landfill Capacity**

If additional landfills are not constructed and existing landfills are not expanded, the Integrated Waste Management Plan (IWMP) Siting Element estimates that the County will run out of physical landfill capacity by 2016. Therefore, the development of future land uses as designated in the Hybrid Map Alternative would have the potential to be served by landfills with insufficient capacity to accommodate the future solid waste disposal needs. Compared to the proposed project, the Hybrid Map Alternative would have a lower population (7,900 fewer people), which would result in a reduced demand for landfill capacity. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

**Solid Waste Regulations**

Development of future land uses as designated in the Hybrid Map Alternative would be required to comply with federal, State, and local statutes and regulations related to solid waste. Compliance with existing regulations would ensure impacts to solid waste regulations would remain at a level of less than significant. A significant impact would not occur. Therefore, the Hybrid Map Alternative would result in a similar impact associated with solid waste regulations as compared to the proposed project.

**Energy**

Development of land uses as designated in the Hybrid Map Alternative would require energy for construction and operation, thereby increasing energy demand in the County. To accommodate the projected increase in energy demand, energy facilities would need to be constructed or expanded. Compared to the proposed project, the Hybrid Map Alternative would accommodate a smaller population (3,000 fewer housing units), which would result in a reduced demand for energy. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.2.2.17 Climate Change*

**Compliance with AB 32**

Compliance with AB 32 requires greenhouse gas (GHG) emissions to be reduced to 1990 levels by the year 2020. When compared to the proposed project, the Hybrid Map Alternative would accommodate less growth and development in the unincorporated County, which would translate to less GHG emissions from community and government operations. Additionally, the Hybrid Map Alternative would result in a total of 318,658 less VMT than the proposed project, which would translate into less GHG emissions from transportation. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

**Adverse Climate Change Impacts**

Climate change impacts that would be most relevant to the unincorporated County are the effects on water supply, wildfires, energy needs, and impacts to public health. Scientists have forecast that if current GHG emission trends continue, the region will face severe adverse impacts. When compared to the proposed project, the Hybrid Map Alternative would accommodate less growth and development in the unincorporated County, resulting in either less growth in the region or moving the growth to the incorporated cities, where more infrastructure and services are in place to make this growth more sustainable. In addition, this would translate to less GHG emissions from community and government operations. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.2.2.18 Fulfillment of Project Objectives*

As with the proposed project, the Hybrid Map Alternative would meet all of the objectives identified for the proposed project with varying levels of fulfillment. For one of the 10 objectives, 1) support reasonable share of projected regional growth, the proposed project is considered to better fulfill this objective because the Hybrid Alternative would accommodate a smaller population than the proposed project. For nine of the 10 objectives, the Hybrid Map Alternative would be considered to better fulfill the objectives. This alternative would reduce land consumption and promote sustainability (objective 2) because less development is proposed under this alternative; reinforce the vitality, local economy, and character of communities (objective 3) because reduced development would result in fewer potential impacts to community character; protect natural resources and habitats of ecological importance (objective 4) because potential impacts to biological resources are reduced under this alternative; account for physical constraints and natural hazards of the land (objective 5) because this alternative proposes lower density development in some areas such as Valley Center to reflect environmental constraints; provide and support multi-modal transportation network (objective 6) because less dwelling units would be constructed in the auto-dependent areas of the unincorporated County; sustainable communities/reduced greenhouse gas emissions (objective 7) because potential GHG emissions from vehicles would be reduced under this alternative; preserve agriculture (objective 8) because this alternative would result in reduced potential impacts related to direct and indirect conversion of farmland to non-agricultural use; minimize public costs of infrastructure and services (objective 9) because less infrastructure and services would be required under this alternative due to reduced development; and recognize community and stakeholder interests (objective 10).

## 4.3 Analysis of the Draft Land Use Map Alternative

### 4.3.1 Draft Land Use Map Alternative Description and Setting

The Draft Land Use Map Alternative, shown in Figure 4-2, was initially endorsed by the BOS during the residential land use mapping phase in October 2003, and was subsequently endorsed after refinements were made in June 2004, May 2005, and August 2006. County staff included additional land use modifications in this alternative to achieve a road network that would better accommodate the land use map. The Draft Land Use Map Alternative would support build-out of 67,803 residential dwelling units, or 3,700 less units than the proposed project (see Table 4-7). Also as identified in Table 4-1, the Draft Land Use Map Alternative

would decrease the acreage of the following land uses, as compared to the proposed project: village residential (-514 acres); semi-rural residential (-15,313 acres); specific plan area (-683 acres); commercial (-344 acres); industrial (-266 acres); and village core mixed use (-12 acres). When compared to the proposed project, the Draft Land Use Map Alternative would increase the acreage of the following land use designations: rural lands (+17,198) and office professional (+18 acres).

The Draft Land Use Map Alternative would result in significantly less acres of semi-rural residential and significantly more acres of rural lands designations, than the proposed project. As shown in Table 4-2, compared to the proposed project, the CPAs that would experience substantial increases in the rural land use designations under the Draft Land Use Map Alternative include Pala/Pauma Valley Subregion (+4,199 acres); North County Metro Subregion – remainder area (+3,183 acres); North Mountain Subregion – remainder area (+2,972 acres); Desert Subregion – Borrego Springs (+2,103 acres); Valley Center CPA (+1,344 acres); and San Dieguito CPA (+1,134 acres). Compared to the proposed project, the CPAs that would experience substantial decreases in the semi-rural land use designations under the Draft Land Use Map Alternative include Pala/Pauma Valley Subregion (-4,197 acres); North County Metro Subregion – remainder area (-2,660 acres); North Mountain Subregion – remainder area (-2,970 acres); Desert Subregion – Borrego Springs (-1,974 acres); San Dieguito CPA (-1,111 acres); and Jamul/Dulzura Subregion (-404 acres). Other examples of differences between this alternative and the proposed project are that the Mountain Empire Subregion - Tecate, Rainbow CPA, Ramona CPA, and North County Metro Subregion would include less commercial and industrial land use designations under this alternative as compared to the proposed project.

Some prominent land use differences between the Draft Land Use Map Alternative and the proposed project pertain to the Alpine, Valley Center, and Bonsall CPAs. Changes to land use related to the road network were primarily made in the Valley Center and Alpine CPAs. In Alpine, areas that are proposed for village densities or commercial use under the proposed project are designated at lower densities and with fewer commercial uses to reduce the overall amount of vehicular trips that would be generated under this alternative. In Valley Center, this alternative proposes more rural land use and fewer semi-rural and village areas as compared to the proposed project. Some areas proposed for industrial and commercial use under the proposed project are designated semi-rural residential under this alternative. The proposed project designates a specific plan area along the southern boundary of the Valley Center CPA. This specific plan was previously designated on the existing General Plan land use map, but does not yet have an adopted specific plan in place. The specific plan designation is located inside the SDCWA boundary but contains steep slopes and lacks services and infrastructure, which makes access to this specific plan area difficult. Therefore, the Draft Land Use Map Alternative would designate the entire site as low density rural land rather than giving it a specific plan designation. Additionally, in the Bonsall CPA, a site designated for office professional use under the proposed project is identified as rural use under the Draft Land Use Map Alternative. The rural use designation was included in this alternative to address several issues, including traffic, safety, biological resources, and flooding. The contribution of traffic to SR-76 was a concern because this facility currently operates at an unacceptable LOS. Due to the location of the site, direct access to and from SR-76 would also pose potential traffic safety issues. In addition, the site contains sensitive biological resources and development of the site would impact a floodplain.

## 4.3.2 Comparison of the Effects of the Draft Land Use Map Alternative to the Proposed Project

The Draft Land Use Map Alternative transitions from the Hybrid Map Alternative with further reductions in densities and intensities for certain properties. The Hybrid Map Alternative contains some areas with higher densities than the proposed project. In most cases, these are similar on the Draft Land Use Map Alternative. However, in no cases does the Draft Land Use Map Alternative contain higher densities than the Hybrid Map Alternative. As a result, the impacts under the Draft Land Use Map Alternative would be less than Hybrid Map Alternative. Therefore, the analysis of the Hybrid Map Alternative serves as a reference for the following analysis and where references to the Hybrid Map Alternative analysis can serve to reduce redundancy and reiteration, they are included.

### *4.3.2.1 Aesthetics*

Impacts to scenic vistas, scenic resources, visual character or quality, and light or glare would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Draft Land Use Map Alternative would accommodate a smaller number of homes (3,700 fewer homes) than the proposed project. This alternative would accommodate approximately 914 fewer homes within Zone A of the Palomar and Mount Laguna Observatories as compared to the proposed project. Impacts to scenic vistas, scenic resources, visual character or quality, and light or glare would be considered significant and mitigated with those measures identified in Chapter 7.0. Impacts to scenic vistas and scenic resources would be mitigated to a less than significant level; however, it is unlikely that impacts associated with visual character or quality and light or glare would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.3.2.2 Agricultural Resources*

Impacts related to the direct conversion of farmland, land use conflicts with agricultural zoning, and indirect conversion of farmland would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development under the Draft Land Use Map Alternative. For comparison purposes, the Draft Land Use Map Alternative would result in a direct conversion of 53,147 acres of agricultural resources to non-agricultural use, which is 2,816 fewer acres compared to the proposed project. When compared to the proposed project, fewer acres of incompatible land uses would be placed near agricultural resources due to the overall decrease in development under this alternative. Therefore, impacts related to direct and indirect conversion of farmland would be lessened as compared to the proposed project. However, impacts associated with these issues would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable. Implementation of the proposed Draft Land Use Map Alternative would also potentially result in a conflict with existing Williamson Act contracts or with existing agricultural zoning. Similar to the proposed project, mitigation identified in Chapter 7.0 would be required and impacts would be reduced to a level below significant.

### 4.3.2.3 Air Quality

Impacts to air quality plans, air quality violations, non-attainment criteria pollutants, sensitive receptors, and objectionable odors would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Draft Land Use Map Alternative would result in fewer VMT (-331,234 VMT) than the proposed project. Fewer VMT would reduce air quality impacts compared to the proposed project due to reduced vehicular emissions. However, similar to the proposed project, impacts to sensitive receptors, air quality violations, and non-attainment criteria pollutants would be considered significant and mitigation in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable. Similar to the proposed project, the Draft Land Use Alternative would not result in a significant impact associated with conflicts with air quality plans or objectionable odors.

### 4.3.2.4 Biological Resources

Impacts to special status plant and wildlife species, riparian habitat and other sensitive natural communities, federally protected wetlands, wildlife movement corridors and nursery sites, local policies and ordinances, and HCPs and NCCPs would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. As shown in Table 4-8, the Draft Land Use Map Alternative would impact approximately 22,858 fewer acres of sensitive natural habitats potentially supporting special status plant and wildlife species, 833 fewer acres of riparian habitat, and 121 fewer total acres of federally protected wetlands than the proposed project. Impacts to wildlife corridors and nursery sites would be reduced as compared to the proposed project because this alternative would impact fewer acres of sensitive natural habitat that would potentially contain wildlife corridors and nursery sites. In addition, based on a comparative impact report prepared by the Conservation Biology Institute (CBI 2005), indirect impacts to habitat would be substantially reduced under the Draft Land Use Map Alternative when compared to the proposed project.

Impacts to sensitive species, riparian and other sensitive natural communities, federally protected wetlands, and wildlife corridors and nursery sites would be significant and implementation of the mitigation measures identified in Chapter 7.0 would be required. It is unlikely that impacts to special status species, riparian and other sensitive natural communities, and wildlife corridors and nursery sites would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable. Similar to the proposed project, projects proposed under this alternative would be subject to existing regulatory processes that ensure that no significant impacts associated with conflicts with local policies and ordinances, HCPs, or NCCPs would occur.

### 4.3.2.5 Cultural Resources

Impacts to historical resources, archaeological resources, paleontological resources, and human remains would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. Development under the Draft Land Use Map Alternative would have the potential to substantially alter the significance of historical resources, or destroy archaeological resources, paleontological resources, and human remains that are potentially present on or below the ground surface during ground-disturbing

construction activities. High intensity development would have a higher potential to impact the significance of cultural resources because it would require more ground-disturbing construction activities than lower intensity development. Compared to the proposed project, the Draft Land Use Map Alternative would decrease the overall development in the unincorporated County and would result in fewer potential impacts to cultural resources due to destruction during construction or alteration to the significance of a resource post-construction. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.3.2.6 Geology and Soils*

Impacts related to exposure to seismic-related hazards, soil erosion or topsoil loss, soil stability, expansive soils, and waste water disposal systems would be similar to those discussed for the Hybrid Map Alternative. All future development would be required to comply with relevant federal, State, and local regulations and building standards, including the UBC, CBC, subsequent construction standards, and County-required geotechnical reconnaissance reports and investigations. Construction occurring under the Draft Land Use Map Alternative would be required to comply with the NPDES permit program, which requires a SWPPP to be prepared and BMPs to be identified for construction sites greater than one acre. All construction activities occurring under the Draft Land Use Map Alternative would be required to comply with CBC and the County Grading Ordinance. Additionally, all future development projects would be required to comply with all applicable federal, State, and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would ensure that potentially significant impacts are kept to a level below significant. Therefore, the Draft Land Use Map Alternative would result in a similar impact associated with geology and soils as compared to the proposed project.

### *4.3.2.7 Hazards and Hazardous Materials*

Impacts related to transportation, use, and disposal of hazardous materials; accidental release of hazardous materials; hazards to schools; existing hazardous materials sites; public airports; private airports; emergency response and evacuations plans; wildland fires; and vectors would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. Similar to the proposed project, compliance with existing regulations would reduce impacts related to the transportation, use, and disposal of hazardous materials to a level less than significant. However, the less than significant impact would be further reduced compared to the proposed project because the Draft Land Use Map Alternative would reduce industrial land uses by 266 acres and commercial land uses by 350 acres, which are the land uses most likely to regularly use hazardous materials. Similar to the proposed project, compliance with existing regulations would reduce impacts related to accidental release of hazardous materials, hazards to schools, and existing hazardous material sites to a level less than significant. Similar to the proposed project, the Draft Land Use Map Alternative would not create a potentially significant hazard to the public or the environment by substantially increasing human exposure to vectors and a significant impact would not occur.

When compared to the proposed project, the Draft Land Use Map Alternative would have lower density development and would accommodate a smaller population (3,700 fewer residential units), which would result in a reduced risk to people living or working in areas associated with public or private airport operation hazards, and would result in less reallocated growth and less

development with the potential to impair the implementation of emergency response and evacuation plans. Therefore, impacts to private airports, public airports, and emergency response and evacuation plans would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

The Draft Land Use Map Alternative specifically reduces land use densities in areas that are served by fire agencies with deficient travel times and in areas which have difficulty meeting fire code requirements due to limited access. Therefore, impacts to wildland would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to wildland fires would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.3.2.8 Hydrology and Water Quality*

Impacts related to water quality standards and requirements, groundwater supplies and recharge, erosion or siltation, flooding, capacity of stormwater systems, housing within a 100-year flood hazard area, impediment or redirection of flood flows, dam inundation and flood hazards, and seiche, tsunami, and mudflow hazards would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development.

When compared to the proposed project, the Draft Land Use Map Alternative would have lower density development and would accommodate less population growth (3,700 fewer residential units), which would result in less development that would have fewer non-point source pollutants, reduced risk for groundwater contamination, less permanent development of impervious surfaces, reduced alteration of existing drainage patterns, and reduced risk to people or structures being exposed to mudflow hazards. Therefore, impacts related to water quality standards and requirements, erosion or siltation, flooding, exceedance of stormwater system capacity, and mudflow hazards would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the Draft Land Use Map would reduce total housing within the SDCWA service area by 1,004 dwelling units (see Table 4-6) and would also decrease development outside of the SDCWA boundary by 2,736 residential units. Therefore, the Draft Land Use Map would result in a lesser impact to groundwater because it would result in less growth in groundwater dependent areas. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to groundwater quality and groundwater supplies would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

Table 4-5 identifies proposed land uses under implementation of the Draft Land Use Map Alternative that would occur within a 100-year flood area. For this alternative, County staff purposely reduced higher density land uses located within flood areas (-1,987 acres semi-rural residential) to lower density land uses (+2,157 acres rural land) in order to allow for greater flexibility in avoiding flood hazards. Therefore, although some land uses within flood areas increased under this alternative (+8 acres office professional), they generally pose a lesser risk to the public than those proposed under the General Plan Update. Additionally, when compared to the proposed project, the Draft Land Use Map Alternative would result in 155 less acres of

land uses with the highest potential to impede or redirect flood flows to be located within in a flood area. Therefore, impacts related to housing or structures within a 100-year flood hazard area and impeding or redirecting flood flows would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the Draft Land Use Map Alternative would not change the land use designations within dam inundation zones. Therefore, the Draft Land Use Map would result in a similar impact compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

For similar reasons as are identified above for the Draft Hybrid Map Alternative, a significant impact related to tsunami or seiche hazards would not occur. Therefore, the Draft Land Use Map Alternative would result in a similar impact as compared to the proposed project.

### *4.3.2.9 Land Use*

Impacts related to the physical division of an established community; conflicts with existing land use plans, policies, and regulations; and conflicts with adopted HCPs would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, there would be a reduced need for future roads or road expansions under this alternative, compared to the proposed project, because this alternative would accommodate less growth. However, impacts associated with the physical division of an established community would still be considered significant and mitigated with those measures identified in Chapter 7.0. Similar to the proposed project, the Draft Land Use Map Alternative would not conflict with land use plans, policies, and regulations and future development under the Draft Land Use Map Alternative would be required to demonstrate compliance with any adopted HCP or NCCP. Therefore, similar to the proposed project, the Draft Land Use Map Alternative would not result in a significant impact associated with conflicts with land use plans, policies, or regulations, or applicable HCPs or NCCPs.

### *4.3.2.10 Mineral Resources*

Impacts related to mineral resource availability and mineral resource recovery sites would be similar to those discussed to the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Draft Land Use Map Alternative would accommodate 3,700 fewer residential units than the proposed project. Decreased development density would result in fewer incompatible land uses that would limit mineral resource availability or access to mineral resource recovery sites. For example, a large portion of the Pala/Pauma Valley Subregion has been designated as MRZ-2. The Draft Land Use Map Alternative accommodates approximately 400 fewer acres of higher density semi-rural residential development and 400 additional acres of lower density rural land in this CPA, which would have less potential to result in uses incompatible with mineral resource recovery. However, similar to the proposed project, the loss of mineral resource availability would be unavoidable due to planned growth under the Draft Land Use Map Alternative. Impacts to mineral resource availability and mineral resource recovery sites would be considered significant and the mitigation in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, impacts would remain significant and unavoidable.

### 4.3.2.11 Noise

Impacts related to excessive noise levels, excessive groundborne vibration, permanent increases in the ambient noise level, temporary increases in ambient noise levels, and excessive noise exposure from a public or private airport would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. Decreased development would be less likely to result in noise impacts including the exposure of land uses to noise levels in excess of noise compatibility guidelines, excessive groundborne vibration, temporary increases in ambient noise levels, and excessive noise exposure from a public or private airport because less development would result in less construction noise, fewer noise receptors, and more development spaced away from noise sources. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. Lower density development would also be less likely to result in permanent increases in the ambient noise level. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts associated with increases in the ambient noise level would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### 4.3.2.12 Population and Housing

Impacts related to population growth, displacement of housing, and displacement of people would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Draft Land Use Map would accommodate 67,803 new residential units compared to 2008 conditions. Growth under the Draft Land Use Map Alternative would be consistent with regional growth forecasts because SANDAG forecasts approximately 68,889 new residential units in the unincorporated County by buildout, compared to 2008 conditions. Therefore, similar to the proposed project, this alternative would accommodate a reasonable share of regional growth and would not induce unplanned direct or indirect population growth. Increases in residential densities throughout the County would sufficiently replace any displaced housing or people in the unincorporated County so that the RHNA would be accommodated and replacement housing elsewhere would not be necessary. Similar to the proposed project, the Draft Land Use Map Alternative would not result in a significant impact associated with displacement of housing or people.

### 4.3.2.13 Public Services

New development under the Draft Land Use Map Alternative would increase the existing demand for fire protection services, police protection services, school facilities, and library facilities. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, and library facilities would be required. When compared to the proposed project, the Draft Land Use Map Alternative would accommodate less population growth (3,700 fewer residential units), and therefore would result in a reduced need for new or additional fire, police, school, and library facilities to be constructed or expanded. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. After mitigation,

impacts related to school facilities would remain significant and unavoidable, due to the fact that the construction of such facilities is outside the jurisdiction of the County.

### *4.3.2.14 Recreation*

Impacts related to deterioration of parks and recreational facilities and construction of new recreational facilities would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. The projected population growth anticipated under the Draft Land Use Map Alternative would result in an increase in the number of persons that utilize recreational facilities in the unincorporated County as compared to existing conditions, which would result in accelerated deterioration of the facilities and would create a need for new or expanded recreational facilities. When compared to the proposed project, the Draft Land Use Map Alternative would accommodate a smaller population (3,700 fewer residential units), and would result in less demand for recreational facilities. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.3.2.15 Transportation and Traffic*

Impacts related to unincorporated County traffic and LOS standards, adjacent jurisdictions traffic and LOS standards, rural road safety, emergency access, parking capacity, and alternative transportation systems would be similar to those discussed for the Hybrid Map alternative but to a lesser degree because of the overall decrease in development. Within Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), Table 5.9, Roadway Lane Miles by Subregion & CPA - Draft Land Use Map, displays lane miles proposed under the Draft Land Use Map Alternative by facility type (State highway, Mobility Element roads, and local public roads), as well as by Subregion and/or CPA. Table 5.10, Roadway Lane Miles by LOS - Draft Land Use Map, in Appendix G, displays projected performance results for the roadway network proposed under the Draft Land Use Map Alternative. The proposed Draft Land Use Map Alternative roadway network is approximately the same as the proposed project (a difference of two lane miles). The Draft Land Use Map Alternative would generate a total of 164,916 less vehicle trips and approximately 331,236 less VMT than the proposed project. Compared to the proposed project (expected to result in 158 deficient roadway segments), the Draft Land Use Map Alternative would have 15 fewer deficient roadway segments within the unincorporated County. Since this alternative would result in reduced impacts on roads within the County, it would also likely reduce impacts to roads in adjacent cities. Therefore, impacts to County and adjacent cities traffic and LOS standards would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, traffic impacts would remain significant and unavoidable.

The Draft Land Use Map Alternative would support a smaller population which would translate to fewer people exposed to rural road safety. This alternative would also result in the need for fewer modifications to existing public transportation plans to accommodate growth in the County. Therefore, the Draft Land Use Map Alternative would result in a lesser impact to rural road safety and alternative transportation than the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the existing conditions that would potentially impair

emergency access would remain the same under the Draft Land Use Map Alternative and the land uses proposed under this alternative would have the potential to require modification to existing County parking regulations, similar to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.3.2.16 Utilities and Service Systems*

Impacts related to wastewater treatment requirements, new water or wastewater treatment facilities, sufficient stormwater drainage facilities, adequate water supplies, adequate wastewater facilities, sufficient landfill capacity, solid waste regulations, and energy would be similar to those discussed for the Hybrid Map alternative but to a lesser degree because of the overall decrease in development. The Draft Land Use Map Alternative would accommodate a lower population than the proposed project within the SDCWA boundary (1,004 fewer residential units) and would accommodate 2,736 fewer residential units outside of the SDCWA boundary. Therefore, overall impacts related to wastewater treatment requirements and adequate wastewater facilities would decrease under this alternative and impacts would be lessened as compared to the proposed project. Impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. Additionally, an overall reduction is development would result in less impermeable space and runoff, fewer solid waste disposal needs, and less energy demand. Therefore, impacts to stormwater drainage facilities, landfill capacity, and energy would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to landfill capacity would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

The Draft Land Use Map Alternative would result in a lesser concentration of housing in areas with existing infrastructure, which would result in an increased need for new water or wastewater facilities and an increased dependence on groundwater. Therefore, impacts to new water and wastewater facilities and adequate water supply would be greater as compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required. Development of future land uses under the Draft Land Use Map Alternative would be required to comply with federal, State, and local statutes and regulations related to solid waste. A significant impact would not occur. Therefore, the Draft Land Use Map Alternative would result in a similar impact to solid waste regulations as compared to the proposed project.

### *4.3.2.17 Climate Change*

Impacts related to compliance with AB 32 and adverse climate change impacts would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. The Draft Land Use Map Alternative would accommodate less growth and development in the unincorporated County, which would translate to less GHG emissions from community and government operations. Additionally, the Draft Land Use Map Alternative would result in a total of approximately 331,236 less VMT than the proposed project, which would translate to less GHG emissions from transportation. Therefore, the Draft Land Use Map would result in fewer impacts related to compliance with AB 32 and adverse climate change impacts as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.3.2.18 Fulfillment of Project Objectives*

As with the proposed project, the Draft Land Use Alternative would meet all of the objectives identified for the proposed project with varying levels of fulfillment. For one of the 10 objectives, 1) support reasonable share of projected regional population growth, the proposed project is considered to better fulfill this objective because the Draft Land Use Map Alternative it would accommodate a smaller population than the proposed project. For nine of the ten objectives, the Draft Land Use Map Alternative would be considered to better fulfill the objectives. This alternative would reduce land consumption and promote sustainability (objective 2) because less development is proposed under this alternative; reinforce the vitality, local economy, and character of communities (objective 3) because reduced development would result in fewer potential impacts to community character; protect natural resources and habitats of ecological importance (objective 4) because potential impacts to biological resources would be reduced under this alternative; account for physical constraints and natural hazards of the land (objective 5) because this alternative proposes lower density development in some areas such as Valley Center to reflect environmental constraints; provide and support multi-modal transportation network (objective 6) because less dwelling units would be constructed in the auto-dependent areas of the unincorporated County; support sustainable communities/reduced greenhouse gas emissions (objective 7) because potential GHG emissions from vehicles would be reduced under this alternative; preserve agriculture (objective 8) because this alternative would result in reduced potential impacts related direct and indirect conversion of farmland to non-agricultural use; minimize public costs of infrastructure and services (objective 9) because less infrastructure and services would be required under this alternative due to reduced development; and recognize community and stakeholder interests (objective 10).

## 4.4 Analysis of the Environmentally Superior Map Alternative

### 4.4.1 Environmentally Superior Map Alternative Description and Setting

The Environmentally Superior Map Alternative, shown in Figure 4-3, reflects a more stringent application of the planning concepts that take into account environmental considerations and constraints, and is more aggressive in restricting growth in portions of the semi-rural residential and the rural lands designations. The Environmentally Superior Map Alternative was developed in response to the areas of significant impacts that were identified for the proposed project where changes in land use designations would have the potential to reduce or alleviate the impact. The Environmentally Superior Map Alternative would support build-out of 56,839 residential dwelling units, or 14,700 less units than the proposed project (see Table 4-7). Also as shown in Table 4-1, the Environmentally Superior Map Alternative would decrease the acreage of the following land uses, as compared to the proposed project: semi-rural residential (-90,770 acres); specific plan area (-4,502 acres); village residential (-2,109 acres); office professional (-19 acres) commercial (-506 acres); industrial (-505 acres); and village core mixed use (-12 acres). When compared to the proposed project, the Environmentally Superior Map Alternative would increase the acreage of rural lands (+97,799). A detailed comparison of the areas of differences between the Environmentally Superior Map and the proposed project is included in Appendix M, Draft Environmentally Superior Map Comparison to Draft Referral Map.

The Environmentally Superior Map Alternative would result in significantly less acres of semi-rural residential land uses and significantly more acres of rural lands than the proposed project. As identified in Table 4-2, the CPAs that would experience substantial increases in the rural land use designation under the Environmentally Superior Map Alternative include Jamul/Dulzura Subregion (+12,060 acres); Desert Subregion – Borrego Springs (+10,963 acres); Pala/Pauma Valley Subregion (+9,724 acres); Valley Center CPA (+9,322); Ramona CPA (+7,572 acres); North Mountain Subregion- remainder area (+7,178 acres); and Bonsall CPA (+4,845 acres). Compared to the proposed project, the CPAs that would experience substantial decreases in the semi-rural land use designation under the Environmentally Superior Map Alternative include Jamul/Dulzura Subregion (-12,060 acres); Desert Subregion – Borrego Springs (-10,963 acres); Pala/Pauma Valley Subregion (-9,756 acres); Valley Center CPA (-8,217 acres); Ramona CPA (-7,482 acres); North Mountain Subregion- remainder area (+7,176 acres); and Bonsall CPA (-4,844 acres). This alternative also proposes more village residential and less rural land designations in the County Islands CPA and less village residential densities in the northern village of the Valley Center CPA.

## 4.4.2 Comparison of the Effects of the Environmentally Superior Map Alternative to the Proposed Project

The Environmentally Superior Map Alternative transitions from the Hybrid Map Alternative and Draft Land Use Map Alternative with further reductions in densities and intensities for certain properties. The Hybrid Map Alternative contains some areas with higher densities than the proposed project. However, in no cases does the Environmentally Superior Map Alternative contain higher densities than the Hybrid Map Alternative. As a result, the environmental impacts under the Environmentally Superior Map Alternative would be less than Hybrid Map Alternative. Therefore, the analysis of the Hybrid Map Alternative serves as a reference for the following analysis and where references to the Hybrid Map Alternative analysis can serve to reduce redundancy and reiteration, they are included.

### *4.4.2.1 Aesthetics*

Impacts to scenic vistas, scenic resources, visual character or quality, and light or glare would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For example, this alternative reduces the density of parcels in Pala/Pauma Valley Subregion and Lakeside CPA to be more consistent with the community character and viewsheds in these areas. For comparison purposes, the Environmentally Superior Map Alternative would accommodate a smaller number of homes (14,700 fewer residential units) than the proposed project. This alternative would accommodate approximately 4,215 fewer homes within Zone A of the Palomar and Mount Laguna Observatories as compared to the proposed project. Impacts to scenic vistas, scenic resources, visual character or quality, and light or glare would be considered significant and mitigated with those measures identified in Chapter 7.0. Impacts to scenic vistas and scenic resources would be mitigated to a less than significant level; however, it is unlikely that impacts associated with visual character or quality and light or glare would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable.

### 4.4.2.2 Agricultural Resources

Impacts related to the direct conversion of farmland, land-use conflicts with agricultural zoning, and indirect conversion of farmland would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development under the Environmentally Superior Map Alternative. For comparison purposes, the Environmentally Superior Map Alternative would result in a direct conversion of 43,725 acres of agricultural resources to non-agricultural use, which is 12,238 fewer acres compared to the proposed project. In addition, fewer acres of incompatible land uses would be placed near agricultural resources due to the overall decrease in development under this alternative. Therefore, impacts related to direct and indirect conversion of farmland would be lessened as compared to the proposed project. However, impacts associated with these issues would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable.

Similar to the proposed project, implementation of the proposed Environmentally Superior Map Alternative would remove the agricultural preserve designator from any lands not currently under Williamson Act Contract. The removal of the agricultural preserve designator would potentially result in a conflict with existing Williamson Act Contracts or the provisions of the Williamson Act. This is because the Environmentally Superior Map would remove non-contracted lands from County-adopted Agricultural Preserves and would also remove the "A" designator from these lands. By removing lands from a preserve at the boundary of a Contract area, new incompatible land uses could be developed adjacent to existing agricultural resources. Similar to the proposed project, this would be considered a potentially significant land use conflict to Williamson Act Contract lands. Implementation of the proposed Environmentally Superior Map Alternative would also potentially result in a conflict with existing Williamson Act Contracts or with existing agricultural zoning. Similar to the proposed project, mitigation identified in Chapter 7.0 would be required and would reduce agricultural land use conflicts to a level below significant.

### 4.4.2.3 Air Quality

Impacts to air quality plans, air quality violations, non-attainment criteria pollutants, sensitive receptors, and objectionable odors would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Environmentally Superior Map Alternative would result in fewer VMT (841,776 fewer VMT) than the proposed project. Fewer VMT would reduce air quality impacts compared to the proposed project due to reduced vehicular emissions. However, similar to the proposed project, impacts to sensitive receptors, air quality violations, and non-attainment criteria pollutants would be considered significant and mitigation in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable. Similar to the proposed project, the Environmentally Superior Map Alternative would not result in a significant impact associated with conflicts with air quality plans or objectionable odors.

### 4.4.2.4 Biological Resources

Impacts to special status plant and wildlife species, riparian habitat and other sensitive natural communities, federally protected wetlands, wildlife movement corridors and nursery sites, local policies and ordinances, and HCPs and NCCPs would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For example, the Environmentally Superior Alternative proposes lower density land uses in Alpine CPA, Bonsall CPA, the Descanso and Pine Valley subareas of Central Mountain Subregion, Fallbrook CPA, Jamul/Dulzura Subregion, Lakeside CPA, the Hidden Meadows subarea of North County Metro Subregion, Rainbow CPA, San Dieguito CPA, and Valley Center CPA to reflect biological constraints. As shown in Table 4-8, the Environmentally Superior Map Alternative would impact approximately 51,094 fewer acres of sensitive natural habitats potentially supporting special status plant and wildlife species, 2,522 fewer acres of riparian habitat, and 404 fewer total acres of federally protected wetlands than the proposed project. Impacts to wildlife corridors and nursery sites would be reduced as compared to the proposed project because this alternative would impact fewer acres of sensitive natural habitat that would potentially contain wildlife corridors and nursery sites. Impacts to sensitive species, riparian and other sensitive natural communities, federally protected wetlands, and wildlife corridors and nursery sites would be significant and mitigation measures identified in Chapter 7.0 would be required. It is unlikely that impacts to special status species, riparian and other sensitive natural communities, and wildlife corridors and nursery sites would be reduced to below a level of significance; thus, the impacts would remain significant and unavoidable. Similar to the proposed project, projects proposed under this alternative would be subject to existing regulatory processes that ensure that no significant impacts associated with conflicts with local policies and ordinances, HCPs, or NCCPs would occur.

### 4.4.2.5 Cultural Resources

Impacts to historical resources, archaeological resources, paleontological resources, and human remains would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. Development under the Environmentally Superior Map Alternative would have the potential to substantially alter the significance of historical resources, or destroy archaeological resources, paleontological resources, and human remains that are potentially present on or below the ground surface during ground-disturbing construction activities. High intensity development would have a higher potential to impact the significance of cultural resources because it would require more ground-disturbing construction activities than lower intensity development. However, compared to the proposed project, the Environmentally Superior Map Alternative would decrease the overall development in the unincorporated County and would result in fewer potential impacts to cultural resources due to destruction during construction or alteration to the significance of a resource post-construction. For example, this alternative proposes lower density development in the area north of Echo Valley in Jamul/Dulzura Subregion to reduce potential impacts to cultural resources. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required to reduce the impacts to a level of less than significant.

### 4.4.2.6 Geology and Soils

Impacts related to the exposure of people to seismic-related hazards, soil erosion or topsoil loss, soil stability, expansive soils, and waste water disposal systems would be similar to those discussed for the Hybrid Map Alternative. All future development would be required to comply with relevant federal, State, and local regulations and building standards, including the UBC, CBC, and County-required geotechnical reconnaissance reports and investigations. Construction occurring under the Environmentally Superior Map Alternative would be required to comply with the NPDES permit program, which requires a SWPPP to be prepared and BMPs to be identified for construction sites greater than one acre, as well as the County Grading Ordinance. Additionally, future development projects would be required to comply with all applicable federal, State, and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with these regulations would ensure that potentially significant impacts related to geology and soils would be kept to a level below significant. Therefore, the Environmentally Superior Map Alternative would result in a similar impact related to geology and soils as compared to the proposed project.

### 4.4.2.7 Hazards and Hazardous Materials

Similar to the proposed project, compliance with existing regulations would reduce impacts related to the transportation, use, and disposal of hazardous materials to a level less than significant. However, the less than significant impact would be further reduced compared to the proposed project because the Environmentally Superior Map Alternative would reduce industrial land uses by 505 acres and commercial land uses by 512 acres, which are the land uses most likely to regularly use hazardous materials. Similar to the proposed project, compliance with existing regulations would reduce impacts related to accidental release of hazardous materials, hazards to schools, and existing hazardous materials sites to a level less than significant. Similar to the proposed project, the Environmentally Superior Map Alternative would not create a potentially significant hazard to the public or the environment by substantially increasing human exposure to vectors and a significant impact would not occur.

When compared to the proposed project, the Environmentally Superior Map Alternative would have lower density development and would accommodate a smaller population (14,700 fewer residential units), which would result in a reduced risk to people living or working in areas associated with public or private airport operational hazards and would result in less reallocated growth and less development with the potential to impair the implementation of emergency response and evacuation plans. Therefore, impacts to private airports, public airports, and emergency response and evacuation plans would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

The Environmentally Superior Map Alternative specifically reduces land use densities in areas that are served by fire agencies with deficient travel times and in areas which have difficulty meeting fire code requirements due to limited access. Therefore, impacts to wildland fires would be lessened as compared to the proposed project. For example, this alternative would accommodate lower density development in parcels in the Boulevard and Jacumba subareas of Mountain Empire Subregion, North County Metro Subregion, Rainbow CPA, and Valley Center CPA to reflect wildland fire risks due to fire service response times. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is

unlikely that impacts to wildland fires would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.4.2.8 Hydrology and Water Quality*

Impacts related to water quality standards and requirements, groundwater supplies and recharge, erosion or siltation, flooding, capacity of stormwater systems, housing within a 100-year flood hazard area, impediment or redirection of flood flows, dam inundation and flood hazards, and seiche, tsunami, and mudflow hazards would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development.

When compared to the proposed project, the Environmentally Superior Map Alternative proposes lower density development and would accommodate less population growth (14,700 fewer residential units), which would result in less development that would have fewer non-point source pollutants, reduced risk for groundwater contamination, less permanent development of impervious surfaces, reduced alteration of existing drainage patterns, and reduced risk to people or structures being exposed to mudflow hazards. Therefore, impacts related to water quality standards and requirements, erosion or siltation, flooding, exceedance of stormwater system capacity, and mudflow hazards would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the Environmentally Superior Map Alternative would reduce total housing within the SDCWA service area by 7,182 dwelling units (see Table 4-6) and decrease development outside the SDCWA boundary by 7,531 dwelling units. Therefore, the Environmentally Superior Map Alternative would result in fewer impacts to groundwater as compared to the proposed project because it would result in reduced groundwater demand in groundwater dependent areas. Impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to groundwater quality and groundwater supplies would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

Table 4-5 identifies proposed land uses under implementation of the Environmentally Superior Map Alternative that would occur within a 100-year flood area. The Environmentally Superior Map Alternative would result in reduced higher density land uses located within flood areas (-9,732 acres semi-rural residential) to lower density land uses (+10,556 rural land) in order to allow for greater flexibility in avoiding flood hazards. For example, this alternative would accommodate lower density development compared to the proposed project in areas in the Descanso subarea of the Central Mountain Subregion, Crest/Dehesa Subregion, Lakeside CPA, the Potrero subarea of the Mountain Empire Subregion, and San Dieguito CPA in order to reflect constraints due to proximity to a floodplain. Additionally, when compared to the proposed project, the Environmentally Superior Map Alternative would result in 760 less acres of land uses with the highest potential to impede or redirect flood flows to be located within in a flood area. This alternative proposes lower density development at the northern end of Moreno Valley east of Morena Avenue in Lakeside CPA to reflect dam inundation hazards associated with San Vicente Reservoir. Therefore, impacts related to housing or structures within a 100-year flood hazard area, impeding, or redirecting flood flows, and dam inundation hazards would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the Environmentally Superior Map Alternative would not change the land use designations within dam inundation zones. Therefore, the Environmentally Superior Map

Alternative would result in a similar impact compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

For similar reasons as are identified above for the Draft Hybrid Map Alternative, a significant impact related to tsunami or seiche hazards would not occur. Therefore, the Environmentally Superior Map Alternative would result in a similar impact as compared to the proposed project.

### *4.4.2.9 Land Use*

Impacts related to the physical division of an established community; conflicts with existing land use plans, policies, and regulations; and conflicts with adopted HCPs would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, there would be a reduced need for future roads or road expansions under this alternative, compared to the proposed project, because this alternative would accommodate less growth. However, impacts associated with the physical division of an established community would still be considered significant and mitigated with those measures identified in Chapter 7.0. Similar to the proposed project, the Environmentally Superior Map Alternative would not conflict with applicable land use plans, policies, and regulations; and future development under the Environmentally Superior Map Alternative would be required to demonstrate compliance with any applicable adopted HCP or NCCP. Therefore, similar to the proposed project, the Environmentally Superior Map Alternative would not result in a significant impact associated with land use plans policies, or regulations, or applicable HCPs or NCCPs.

### *4.4.2.10 Mineral Resources*

Impacts related to mineral resource availability and mineral resource recovery sites would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. For comparison purposes, the Environmentally Superior Map Alternative would accommodate 14,700 fewer residential units than the proposed project. Decreased development density would result in fewer incompatible land uses that would limit mineral resource availability or access to mineral resource recovery sites. For example, a large portion of the Pala/Pauma Valley Subregion has been designated as MRZ-2. The Environmentally Superior Map Alternative accommodates approximately 700 fewer acres of higher density semi-rural residential development and 10,000 additional acres of lower density rural land in this CPA, which would have less potential to result in uses incompatible with mineral resource recovery. However, similar to the proposed project, the loss of mineral resource availability would be unavoidable due to planned growth under the Environmentally Superior Map Alternative. Impacts to mineral resource availability and mineral resource recovery sites would be considered significant and the mitigation in Chapter 7.0 would be required. It is unlikely that impacts would be reduced to below a level of significance; thus, impacts would remain significant and unavoidable.

### *4.4.2.11 Noise*

Impacts related to excessive noise levels, excessive groundborne vibration, permanent increases in the ambient noise level, temporary increases in ambient noise levels, and excessive noise exposure from a public or private airport would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in

development. Decreased development would be less likely to result in noise impacts including the exposure of land uses to noise levels in excess of noise compatibility guidelines, excessive groundborne vibration, temporary increases in ambient noise levels, and excessive noise exposure from a public or private airport because less development would result in less construction noise, fewer noise receptors, and more development spaced away from noise sources. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. Lower density development would also be less likely to result in permanent increases in the ambient noise level. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts associated with the ambient noise level would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

### *4.4.2.12 Population and Housing*

For comparison purposes, the Environmentally Superior Map would accommodate 56,839 new residential units compared to 2008 conditions. This alternative accommodates 17 percent less residential development than forecasted by SANDAG for the unincorporated County. Therefore, this alternative would not meet the RHNA and would not accommodate a reasonable share of regional growth and would have the potential to result in unplanned growth elsewhere in the region, such as in the incorporated cities. This alternative would include adequate residential density throughout the County to sufficiently replace any displaced housing or people in the unincorporated County so that replacement housing elsewhere would not be necessary. Therefore, the Environmentally Superior Map Alternative would result in a greater impact to population growth compared to the proposed project because the Environmentally Superior Map Alternative would have the potential result in the direct or indirect inducement of unplanned population growth outside of the unincorporated County. Similar to the proposed project, the Environmentally Superior Map Alternative would not result in a significant impact associated with displacement of housing or people.

### *4.4.2.13 Public Services*

New development consistent with land use designated under the Environmentally Superior Map Alternative would increase the existing demand for fire protection services, police protection services, school facilities, and library facilities. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, and library facilities would be required. When compared to the proposed project, the Environmentally Superior Map Alternative would accommodate less population growth (14,700 fewer residential units), and therefore would result in a reduced need for fire, police, school, and library facilities to be constructed or expanded. For example, this alternative would accommodate lower density development in the Boulevard and Jacumba subareas of the Mountain Empire Subregion, North County Metro Subregion, Rainbow CPA, and Valley Center CPA, in response to inadequate fire service response times in these areas. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. After mitigation, impacts related to school facilities would remain significant and unavoidable, due to the fact that the construction of such facilities is outside the jurisdiction of the County.

### 4.4.2.14 Recreation

Impacts related to deterioration or construction of recreational facilities would be similar to those discussed for the Hybrid Map alternative but to a lesser degree because of the overall decrease in development. The projected population growth anticipated under the Environmentally Superior Map Alternative would result in an increase in the number of persons that utilize recreational facilities in the unincorporated County as compared to existing conditions, which would result in accelerated deterioration of the facilities and would create a need for new or expanded recreational facilities. Compared to the proposed project, the Environmentally Superior Map Alternative would accommodate a smaller population (14,700 fewer residential units), and would result in a lower demand for recreational facilities. Therefore, impacts would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required to reduce the impacts to a level of less than significant.

### 4.4.2.15 Transportation and Traffic

Impacts related to unincorporated County traffic and LOS standards, adjacent jurisdictions traffic and LOS standards, rural road safety, emergency access, parking capacity, and alternative transportation systems would be similar to those discussed for the Hybrid Map alternative but to a lesser degree because of the overall decrease in development. As identified in Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), the Environmentally Superior Map Alternative would generate a total of 330,217 less vehicle trips than the proposed project and approximately 841,776 less VMT than the proposed project. Compared to the proposed project (expected to result in 158 deficient roadway segments), the Environmentally Superior Map Alternative would have 58 fewer deficient roadway segments within the unincorporated County. This alternative specifically proposes lower density development compared to the proposed project in Alpine CPA, Fallbrook CPA, the Tecate subarea of Mountain Empire Subregion, the Hidden Meadows subarea of the North County Metro Subregion, Rainbow CPA, San Dieguito CPA, and Valley Center CPA to reduce potential traffic impacts. Since this alternative would result in reduced impacts on roads within the County, it would also likely reduce impacts to roads in adjacent cities. Therefore, impacts to County and adjacent cities traffic and LOS standards would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that the application of mitigation measures would reduce impacts to below a level of significance; thus, traffic impacts would remain significant and unavoidable.

The Environmentally Superior Map Alternative would support a smaller population which would translate to fewer people exposed to rural road safety. This alternative would also result in the need for fewer modifications to existing public transportation plans to accommodate growth in the County. Therefore, the Environmentally Superior Map Alternative would result in a lesser impact to rural road safety and alternative transportation than the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. When compared to the proposed project, the existing conditions that would potentially impair emergency access would remain the same under the Environmentally Superior Map Alternative and the land uses proposed under the this alternative would have the potential to require modification to existing County parking regulations, similar to the proposed

project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.4.2.16 Utilities and Service Systems*

Impacts related to wastewater treatment requirements, new water or wastewater treatment facilities, sufficient stormwater drainage facilities, adequate water supplies, adequate wastewater facilities, sufficient landfill capacity, solid waste regulations, and energy would be similar to those discussed for the Hybrid Map alternative but to a lesser degree because of the overall decrease in development. The Environmentally Superior Map Alternative would accommodate a lower population than the proposed project within the SDCWA boundary (7,182 fewer residential units) and outside of the SDCWA boundary (7,531 fewer residential units). Therefore, overall impacts related to wastewater treatment requirements and adequate wastewater facilities would decrease under this alternative because demand for wastewater treatment would be lower than for the proposed project. Additionally, an overall reduction in development would result in less impermeable surfaces and runoff, fewer solid waste disposal needs, and less energy demand. Therefore, impacts to stormwater drainage facilities, landfill capacity, and energy would be lessened as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to landfill capacity would be reduced to below a level of significance; thus, the impact would remain significant and unavoidable.

The Environmentally Superior Map Alternative would accommodate less housing (14,700 fewer dwelling units) and involve less population growth to unincorporated areas inside and outside the SDCWA boundary; therefore, it would result in a reduced need for new water or wastewater facilities and reduced dependence on imported water and groundwater. Impacts to new water and wastewater facilities and adequate water supply would be less as compared to the proposed project. Impacts would be considered significant and the mitigation identified in Chapter 7.0 would be required. It is unlikely that impacts to water supply would be fully reduced to below a level of significance; thus, the impact would remain significant and unavoidable. Development of future land uses under the Environmentally Superior Map Alternative would be required to comply with federal, State, and local statutes and regulations related to solid waste. A significant impact would not occur. Therefore, the Environmentally Superior Map Alternative would result in a similar impact to solid waste regulations as compared to the proposed project.

### *4.4.2.17 Global Climate Change*

Impacts related to compliance with AB 32 and adverse climate change impacts would be similar to those discussed for the Hybrid Map Alternative but to a lesser degree because of the overall decrease in development. The Environmentally Superior Map Alternative would accommodate less growth and development in the unincorporated County, which would translate to less GHG emissions from community and government operations. Additionally, the Environmentally Superior Map Alternative would result in a total of approximately 841,776 less VMT than the proposed project, which would translate to less GHG emissions from transportation. Therefore, the Environmentally Superior Map would result in fewer impacts related to compliance with AB 32 and adverse climate change impacts as compared to the proposed project. However, impacts would still be considered significant and the mitigation identified in Chapter 7.0 would be required.

### *4.4.2.18 Fulfillment of Project Objectives*

As with the proposed project, the Environmentally Superior Map Alternative would meet all of the objectives identified for the proposed project with varying levels of fulfillment. For objectives 1 (support a reasonable share of projected regional population growth); 3 (reinforce the vitality, local economy, and character of communities); and 10 (recognize community and stakeholder interests), the Environmentally Superior Map Alternative would be considered in less fulfillment of the objectives because this alternative proposes a smaller population than the proposed project and because this alternative does not reflect community and stakeholder interests to the extent of the proposed project. For seven of the 10 objectives, the Environmentally Superior Map Alternative would be considered to better fulfill the objectives. This alternative would reduce land consumption and promote sustainability (objective 2) and protect natural resources and habitats of ecological importance (objective 4) because potential impacts to biological resources would be reduced under this alternative; account for physical constraints and natural hazards of the land (objective 5) because this alternative proposes lower density development in some areas such as Valley Center to reflect environmental constraints; provide and support multi-modal transportation network (objective 6) because less dwelling units would be constructed in the auto-dependent areas of the unincorporated County; promote sustainable communities/reduced greenhouse gas emissions (objective 7) because potential GHG emissions from vehicles would be reduced under this alternative; preserve agriculture (objective 8) because this alternative would result in reduced potential impacts related direct and indirect conversion of farmland to non-agricultural use; and minimize public costs of infrastructure and services (objective 9) because less infrastructure and services would be required under this alternative due to reduced development.

## 4.5 Analysis of the No Project Alternative

### 4.5.1 No Project Alternative Description and Setting

The No Project Alternative assumes that the existing General Plan would remain in effect and is represented by the land use map for the existing General Plan provided in Figure 4-4. The main difference between the No Project Alternative and the proposed project is that the proposed project considers existing constraints to development and concentrates population growth in the western areas of the County where infrastructure and services are available, while the existing General Plan has less focus on environmental and infrastructure constraints. In many cases, the existing General Plan does not reflect the carrying capacity of the land or reflect development capacity when biological constraints, steep slopes, groundwater, floodplains, and infrastructure are taken into account. Additionally, the development capacity of the existing General Plan is greater (112,167 additional future dwelling units) than the proposed General Plan Update (71,540 additional future dwelling units) (see Table 4-7). Many more of these future dwelling units would be built in the eastern areas of the County under the No Project Alternative as compared to the proposed project. Therefore, the No Project Alternative generally allows higher densities in areas outside of the SDCWA boundary as compared to the proposed project.

As shown in Table 4-1, when compared to the proposed project, the No Project Alternative would represent a decrease in the acreages of the following land uses Countywide: village residential (-3,371 acres); rural lands (-463,235); commercial (-423 acres); industrial (-680 acres); village core mixed use (-50 acres); State and federal lands (-245,378 acres) and tribal

lands (-6,499 acres). When compared to the proposed project, the No Project Alternative would represent an increase in the acreages of the following land use designations: semi-rural residential (+582,957 acres), specific plan area (+27,201 acres), and office professional (+76 acres). The No Project Alternative would also result in 113 acres of neighborhood professional, 48 acres of extractive and 79 acres of telecommunications land use designations, which would not exist under the proposed project or other alternatives. Additionally, the public/semi-public and recreational open space land use designation, which is included in the proposed project and the other alternatives, does not exist under the No Project Alternative.

Generally, the No Project Alternative would result in significantly less acres of rural lands and State and federal lands, and significantly more acres of semi-rural residential land uses than the proposed project. As identified in Table 4-2, as compared to the proposed project, the CPAs that would experience the greatest increases in the semi-rural land use designation under the No Project Alternative include North Mountain Subregion - remainder area (+91,108 acres); Desert Subregion – remainder area (+66,974 acres); Jamul/Dulzura Subregion (+59,790 acres); Ramona CPA (+37,812 acres); Pala/Pauma Valley Subregion (+35,133 acres); Mountain Empire Subregion – Boulevard (+33,545 acres); Desert Subregion – Borrego Springs (+29,236 acres); Alpine CPA (+27,481 acres); Mountain Empire Subregion – Lake Morena/Campo (+22,586 acres); and North County Metro Subregion – remainder area (+22,202 acres).

Compared to the proposed project, the CPAs that would experience substantial decreases in the rural land use designation under the No Project Alternative include North Mountain Subregion – remainder area (-68,685 acres); Ramona CPA (-42,971 acres); Desert Subregion – remainder area (-40,286 acres); Pala/Pauma Valley Subregion (-32,116 acres); Desert Subregion – Borrego Springs (-28,749 acres); Mountain Empire Subregion – Boulevard (-28,453 acres); Jamul/Dulzura Subregion (-26,704 acres); Mountain Empire Subregion – Lake Morena/Campo (-21,080 acres); Julian CPA (-20,423 acres); Central Mountain Subregion – Pine Valley (-15,275 acres); and Alpine CPA (-14,057 acres).

Also, under the No Project Alternative, the existing General Plan elements would remain the guiding documents for development in the unincorporated County. The County would utilize its existing zoning and other regulations to direct development within its jurisdiction. Infrastructure would be constructed under existing plans. Existing General Plan maps, objectives and policies would continue to be in effect.

## 4.5.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

The No Project Alternative proposes the greatest development densities and intensities for the unincorporated area when compared the proposed project and other project alternatives. In some cases, the No Project Alternative would result in impacts similar to other alternatives, such as the Hybrid Map Alternative. However, because the No Project Alternative proposes higher densities across the unincorporated County than the Hybrid Map Alternative, the impacts under the No Project Alternative would generally be greater than those identified for the proposed project and the other alternatives. Moreover, impacts under the No Project Alternative would not be mitigated by the policies and measures listed in Chapter 7.0 because the No Project Alternative would not implement a new plan and, therefore, would not implement new policies or mitigation measures.

### 4.5.2.1 Aesthetics

Compared to the proposed project, the No Project Alternative would accommodate a greater number of homes (40,627 additional residential units). This alternative would accommodate 10,399 additional residential units within Zone A of Palomar and Mount Laguna Observatories compared to the proposed project. Therefore, the No Project Alternative would result in greater night lighting impacts compared to the proposed project. However, this alternative would result in fewer impacts to community character since it would not substantially change the existing condition. Impacts to scenic vistas, scenic resources, and light or glare would be significant and unavoidable.

### 4.5.2.2 Agricultural Resources

Compared to the proposed project, the No Project Alternative would result in higher density land uses throughout the unincorporated County and would result in a greater potential for direct or indirect conversion of farmland. Impacts associated with these issues would be significant and unavoidable. The No Project Alternative would not result in a direct conflict with any existing Williamson Act contract or the provisions of the Williamson Act and would not conflict with existing agricultural zoning. Unlike the proposed project, agricultural land use conflicts would not occur.

### 4.5.2.3 Air Quality

Compared to the proposed project, the No Project Alternative would result in greater VMT (3,007,575 additional VMT) than the proposed project. More VMT would result in greater air quality impacts compared to the proposed project due to increased vehicular emissions. Similar to the proposed project, impacts to sensitive receptors, air quality violations, and non-attainment criteria pollutants would be considered significant and unavoidable. Similar to the proposed project, the No Project Alternative would not result in a significant impact associated with conflicts with air quality plans or objectionable odors.

### 4.5.2.4 Biological Resources

Compared to the proposed project, the No Project Alternative would result in greater impacts to sensitive natural habitats potentially supporting special status plant and wildlife species, riparian habitat, federally protected wetlands, and wildlife corridors and nursery sites because this alternative proposes overall greater density development. Table 4-8 shows estimated habitat impacts for the No Project Alternative in comparison to the other project alternatives. Higher density developments result in greater direct impacts to biological resources than lower density development because more vegetation would be removed or disturbed. In many cases, the No Project Alternative does not reflect the actual development capacity of the unincorporated County when biological constraints are taken into account. Impacts to sensitive species, riparian and other sensitive natural communities, federally protected wetlands, wildlife corridors and nursery sites would be significant and unavoidable. Similar to the proposed project, projects under this alternative would be subject to existing regulatory processes that ensure that no significant impacts associated with conflicts with local policies and ordinances, HCPs, or NCCPs would occur.

### 4.5.2.5 Cultural Resources

Development under the No Project Alternative would have the potential to substantially alter the significance of historical resources or destroy archaeological resources, paleontological resources, and human remains that are potentially present on or below the ground surface during ground-disturbing construction activities. On a particular site, high intensity development would have a higher potential to impact the significance of cultural resources on that site because it would require more ground-disturbing construction activities than lower intensity development. Compared to the proposed project, the No Project Alternative would increase the overall development in the unincorporated County and would result in greater potential impacts to cultural resources due to destruction during construction or alteration to the significance of a resource post-construction. Therefore, impacts would be greater as compared to the proposed project. Impacts would be considered significant and unavoidable.

### 4.5.2.6 Geology and Soils

Impacts related to exposure to seismic-related hazards, soil erosion or topsoil loss, soil stability, expansive soils, and waste water disposal systems would be similar to those discussed for the Hybrid Map Alternative. All future development would be required to comply with relevant federal, State, and local regulations and building standards, including the UBC, CBC, and County-required geotechnical reconnaissance reports and investigations. Construction occurring under the No Project Alternative would be required to comply with the County Grading Ordinance and the NPDES permit program, which requires SWPPPs to be prepared and BMPs to be identified for construction sites greater than one acre. Additionally, all future development projects would be required to comply with all applicable federal, State, and local regulations related to septic tanks and waste water disposal, including County DEH standards. Compliance with such regulations would ensure that potentially significant impacts related to geology and soils would be kept to a level below significant. Therefore, the No Project Alternative would result in a similar impact to geology and soils as compared to the proposed project.

### 4.5.2.7 Hazards and Hazardous Materials

Similar to the proposed project, compliance with existing regulations would reduce impacts related to the transportation, use, and disposal of hazardous materials to a level less than significant. However, the less than significant impact would be reduced compared to the proposed project because the No Project Alternative would reduce industrial land uses by 680 acres and commercial land uses by 417 acres, which are the land uses most likely to regularly use hazardous materials. Similar to the proposed project, compliance with existing regulations would reduce impacts related to accidental release of hazardous materials, hazards to schools, and existing hazardous material sites to a level less than significant. Also, the No Project Alternative would not create a potentially significant hazard to the public or the environment by substantially increasing human exposure to vectors and a significant impact would not occur.

When compared to the proposed project, the No Project Alternative proposes greater density development and would accommodate a larger population (40,627 additional residential units), which would result in a greater risk to people living or working in areas associated with public or private airport operation hazards and would result in more development with the potential to impair the implementation of emergency response and evacuation plans. Therefore, impacts to

private airports, public airports, and emergency response and evacuation plans would be greater as compared to the proposed project. Impacts would be significant and unavoidable.

When compared to the proposed project, the No Project Alternative would designate more land uses that allow for increased development in the eastern portion of the unincorporated County, where wildland fire risk is greatest and travel times from the nearest fire protection facility are more likely to be inadequate. Therefore, impacts to wildland fires would be greater as compared to the proposed project. Impacts would be considered significant and unavoidable.

### *4.5.2.8 Hydrology and Water Quality*

When compared to the proposed project, the No Project Alternative proposes higher density development and would accommodate greater population growth (40,627 additional residential units), which would result in more development that would have non-point source pollutants, greater risk for groundwater contamination, more permanent development of impervious surfaces, greater alteration of existing drainage patterns, and greater risk to people or structures being exposed to mudflow hazards. Therefore, impacts related to water quality standards and requirements, erosion or siltation, flooding, exceedance of stormwater system capacity, and mudflow hazards would be greater as compared to the proposed project. Impacts would be significant and unavoidable. The No Project Alternative would also result in greater demand and dependence on groundwater supplies because it would accommodate 34,102 additional residential units outside of the SDCWA boundary. Impacts would be greater as compared to the proposed project. Impacts would be significant and unavoidable.

When compared to the proposed project, the No Project Alternative would designate higher density land uses over a greater area and accommodate a greater population, which would result in increased development and an increased risk for housing to be placed within a flood hazard area and increased risk for structures to impede flood flows if placed within a flood hazard area. In many cases, the No Project Alternative does not reflect the actual development capacity of the unincorporated County when floodplains are taken into account. Therefore, impacts related to housing or structures within a 100-year flood hazard area and impeding or redirecting flood flows would be greater as compared to the proposed project. Impacts would still be considered significant and unavoidable. When compared to the proposed project, the No Project Alternative proposes higher density land use designations within dam inundation zones. Therefore, the No Project Alternative would result in a greater impact compared to the proposed project. Impacts would be considered significant and unavoidable.

For similar reasons as are identified above for the other project alternatives, a significant impact related to tsunami or seiche hazards would not occur. Therefore, the No Project Alternative would result in a similar impact as compared to the proposed project.

### *4.5.2.9 Land Use*

Compared to the proposed project, the No Project Alternative would require the provision of more future roads or road expansions because it would accommodate greater growth. Similar to the proposed project, impacts related to physical division of an established community would be considered significant and unavoidable. The No Project Alternative would not conflict with most land use plans, policies, and regulations; however, the No Project Alternative would result in conflicts with the RTP because the RTP assumptions and necessary improvements to the

County's road network were not incorporated into the No Project Alternative (existing General Plan) road network, as they were for the proposed project roadway network. This would be a greater impact compared to the proposed project. Similar to the proposed project, future development under the No Project Alternative would be required to demonstrate compliance with any applicable HCP or NCCP adopted for the project site. Therefore, similar to the proposed project, the No Project Alternative would not result in a significant impact associated with applicable HCPs or NCCPs.

### *4.5.2.10 Mineral Resources*

The No Project Alternative would accommodate 40,627 additional residential units compared to the proposed project. Increased development density would result in more potentially incompatible land uses that would limit mineral resource availability or access to mineral resource recovery sites. For example, the entire Fallbrook CPA has been designated as MRZ-2 or MRZ-3. The No Project Alternative accommodates approximately 100 additional acres of village residential and 8,000 additional acres of higher density semi-rural residential development, as well as 8,000 fewer acres of lower density rural land in this CPA, which would have greater potential to result in uses incompatible with mineral resource recovery. Similar to the proposed project, the loss of mineral resource availability would be unavoidable due to planned growth under the No Project Alternative. Impacts to mineral resource availability and mineral resource recovery sites would be considered significant and unavoidable.

### *4.5.2.11 Noise*

When compared to the proposed project, the No Project Alternative proposes higher density development and would accommodate greater population growth (40,627 additional residential units), which would result in more development Countywide. Higher density development would result in greater noise impacts including the exposure of land uses to noise levels in excess of noise compatibility guidelines, excessive groundborne vibration, temporary increases in ambient noise levels, and excessive noise exposure from a public or private airports, because more development would result in more construction noise, more noise receptors, and more development spaced away from noise sources. Therefore, impacts would be greater as compared to the proposed project. Impacts would be significant and unavoidable. Higher density development would also be more likely to result in permanent increases in the ambient noise level. Therefore, impacts would be greater as compared to the proposed project. Impacts would be significant and unavoidable.

### *4.5.2.12 Population and Housing*

Impacts related to population growth, displacement of housing, and displacement of people would be similar to the proposed project. For comparison purposes, the No Project Alternative would accommodate 112,167 new residential units compared to 2008 conditions, which exceeds the SANDAG forecast of approximately 68,889 new residential units in the unincorporated County by 2030. Therefore, this alternative would accommodate a more than reasonable share of regional growth and would not induce unplanned direct or indirect population growth. Increases in residential densities throughout the County would sufficiently replace any displaced housing or people in the unincorporated County so that housing elsewhere would not be necessary. Similar to the proposed project, the No Project Alternative would not result in the direct or indirect inducement of unplanned population growth. The No

Project Alternative would not result in a significant impact associated with population growth or displacement of housing or people.

### *4.5.2.13 Public Services*

New development under the No Project Alternative would increase the existing demand for fire protection services, police protection services, school facilities, and library facilities. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, and library facilities would be required. When compared to the proposed project, the No Project Alternative would accommodate greater population growth (40,627 additional residential units) which would create a greater demand for facilities to be constructed or expanded. Therefore, impacts would be greater as compared to the proposed project. Impacts would be significant and unavoidable.

### *4.5.2.14 Recreation*

The projected population growth anticipated under the No Project Alternative would result in an increase in the number of persons that utilize recreational facilities in the unincorporated County as compared to existing conditions, which would result in accelerated deterioration of the facilities and would create a need for new or expanded recreational facilities. When compared to the proposed project, the No Project Alternative would accommodate greater population growth (40,627 additional residential units), and would result in a greater demand for recreational facilities and a decreased need for construction of new facilities. Therefore, the No Project Alternative would result in a greater impact as compared to the proposed project. Impacts would be significant and unavoidable.

### *4.5.2.15 Transportation and Traffic*

As identified in Appendix G of this EIR, County of San Diego Traffic and Circulation Assessment (Wilson and Company 2009a), the No Project Alternative would accommodate 780.2 additional roadway lane miles as compared to the proposed project roadway network. The No Project Alternative would generate a total of 55,119 more vehicle trips than the proposed project and approximately 3,007,573 additional VMT than the proposed project.

Compared to the proposed project (expected to result in 158 deficient roadway segments) the No Project Alternative would have 11 fewer deficient roadways. However, the No Project Alternative would result in 392.2 lane miles of deficient facilities, while the proposed project would result in 270.3 lane miles of deficient facilities. Since the overall length of deficient roadways is longer for the No Project Alternative, the No Project Alternative would result in a greater impact as compared to the proposed project. Therefore, impacts to County traffic and LOS standards would be greater as compared to the proposed project. Impacts would be significant and unavoidable. Unlike the proposed project, the No Project Alternative would not concentrate high density land uses within the western portion of the unincorporated County, where many of the adjacent cities' roadways are located. Therefore, when compared to existing conditions, the No Project Alternative would have a reduced impact to adjacent cities traffic and LOS as compared to the proposed project. However, impacts would still be considered significant and unavoidable.

The No Project Alternative would support a larger population which would translate to more people exposed to rural road safety. Unlike the proposed project, the No Project Alternative would not provide a land use plan that promotes alternative transportation. Expanding alternative transportation services to the eastern areas of the unincorporated County would prove difficult and costly due to the remote location and lower demand. Therefore, the No Project Alternative would result in a greater impact to rural road safety and alternative transportation than the proposed project. Impacts would be significant and unavoidable. When compared to the proposed project, the existing conditions that would potentially impair emergency access would remain the same under the No Project Alternative. Therefore, the No Project Alternative would result in a similar impact to emergency access compared to that of the proposed project. Impacts would be considered significant and unavoidable. Unlike the proposed project, the No Project Alternative would not propose land uses that require modifications to existing County parking regulations. Therefore, the No Project Alternative would result in a lesser parking capacity impact than that of the proposed project.

### *4.5.2.16 Utilities and Service Systems*

In many cases, the No Project Alternative does not reflect the actual development capacity of the unincorporated County when the availability of infrastructure is taken into account. The No Project Alternative would accommodate more residential units both inside and outside of the SDCWA boundary (see Table 4-6). Overall impacts related to wastewater treatment requirements and adequate wastewater facilities would be greater under this alternative because this alternative proposes 40,627 additional total residential units in the unincorporated County and would result in an increased demand for wastewater facilities. Additionally, an overall increase in development would result in more impermeable surfaces and runoff, greater solid waste disposal needs, and increased energy demand. Therefore, impacts to stormwater drainage facilities, landfill capacity, and energy would be greater as compared to the proposed project. Impacts would be significant and unavoidable.

The No Project Alternative would result in increased development, which would result in an increased need for new water or wastewater facilities and an increased dependence on groundwater, as compared to the proposed project. Therefore, impacts to new water and wastewater facilities and adequate water supply would be greater as compared to the proposed project. Impacts would be significant and unavoidable. Development of future land uses under the No Project Alternative would be required to comply with federal, State, and local statutes and regulations related to solid waste. A significant impact would not occur. Therefore, the No Project Alternative would result in a similar impact to solid waste regulations as compared to the proposed project.

### *4.5.2.17 Climate Change*

The No Project Alternative would accommodate more growth and development in the unincorporated County, which would translate to more GHG emissions from community and government operations. Additionally, the No Project Alternative would result in a total of approximately 3,007,573 additional VMT than the proposed project, which would translate to more GHG emissions from transportation. Therefore, the No Project Alternative would result in greater impacts related to compliance with AB 32 as compared to the proposed project. In addition, the land development pattern under this alternative would not concentrate development near existing infrastructure and services. As such, the land uses would cover a

greater area of the unincorporated, further increasing GHG emissions. Impacts would be significant and unavoidable. Impacts related to adverse climate change impacts would also be greater as compared to the proposed project due to increased GHG emissions. Impacts would be significant and unavoidable.

### *4.5.2.18 Fulfillment of Project Objectives*

The No Project Alternative would meet three of the objectives identified for the proposed project. These include the following objectives: 1) support a reasonable share of projected regional population growth; 6) provide and support multi-modal transportation network; and 8) preserve agriculture. The No Project Alternative would not achieve the following seven objectives: 2) reduce land consumption and promote sustainability; 3) reinforce the vitality, local economy, and character of communities; 4) protect natural resources and habitats of ecological importance; 5) account for physical constraints and natural hazards of the land; 7) sustainable communities/reduced greenhouse gas emissions; 9) minimize public costs of infrastructure and services; and 10) recognize community and stakeholder interests. Under the No Project Alternative, high density land uses would be located in the eastern portion of the unincorporated County, which would promote land consumption within those portions of the County, rather than reduce it. Therefore, objective 2 would not be met by the No Project Alternative. Objective 3 would not be met by the No Project Alternative because, unlike the proposed project, this alternative would not increase development densities within existing villages and communities, and would not reinforce the existing character and economy of local communities. Objective 4 would not be achieved by the No Project Alternative because land uses and development would be located in many undeveloped and rural eastern portions of the unincorporated County. These areas contain multiple natural resources and habitats of ecological importance. The No Project Alternative would not achieve objectives 5 or 9 because the majority of future development would be in the eastern portion of the unincorporated County, which provides limited connections to existing infrastructure and has an increased wildland fire risk. Objective 7 would not be achieved by the No Project Alternative because this land use pattern would not focus growth in village centers or near existing public services and development would likely increase vehicle trips within the unincorporated County. Objective 10 would not be met by the No Project Alternative, because it would not incorporate stakeholder considerations that were received during the scoping process for the proposed project.

## Table 4-1. Comparison of Alternatives – Countywide Land Use Distribution in Acres

| Land Use Designation | Proposed Project (Referral Map) | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative[2] (Existing General Plan) |
|---|---|---|---|---|---|
| Village Residential | 38,819 | 38,332 | 38,305 | 36,710 | 35,517 |
| Semi-rural Residential | 218,134 | 206,417 | 202,821 | 127,364 | 801,091 |
| Rural Lands[1] | 500,599 | 514,271 | 517,797 | 598,398 | 37,364 |
| Specific Plan Area | 42,187 | 41,504 | 41,504 | 37,685 | 69,388 |
| Office Professional | 239 | 258 | 257 | 220 | 315 |
| Neighborhood Professional | NA | NA | NA | NA | 113 |
| Commercial | 3,548 | 3,223 | 3,204 | 3,042 | 3,131 |
| Industrial | 2,817 | 2,628 | 2,551 | 2,312 | 2,137 |
| Extractive | NA[3] | NA | NA | NA | 48 |
| Village Core Mixed Use | 227 | 215 | 215 | 215 | 127 |
| Public/Semi Public and Recreational Open Space[4] | 27,344 | 27,284 | 27,285 | 27,285 | 135,070 |
| State and Federal Lands[5] | 1,320,096 | 1,319,885 | 1,320,075 | 1,320,780 | 1,075,402 |
| Tribal Lands | 130,447 | 130,440 | 130,442 | 130,442 | 123,911 |
| Telecommunications | NA | NA | NA | NA | 79 |
| **Countywide Total** | 2,284,456 | 2,284,456 | 2,284,456 | 2,284,454 | 2,283,705 |

(1) Forest Conservation Initiative Lands are included in the rural category, except for the No Project Alternative (Existing General Plan)

(2) The Referral, Draft Land Use, Hybrid and Environmentally Superior Maps have a different acreage than the No Project Alternative (Existing General Plan) due to improvements in the Geographic Information Systems data.

(3) NA = An equivalent land use designation does not exist for this alternative

(4) The No Project Alternative does not include the public/semi-public and recreational open space land use designations; however, this alternative does include a public/semi-public land designation that is similar and is included in this category. Under the No Project Alternative, this land use designation would include some local district and utility-owned lands.

(5) Includes open space (conservation), military installations, and national forest and state park land use designations. Under the No Project Alternative, this designation would include some private holdings.

Source: DPLU GIS 2008

## Table 4-2. Comparison of Alternatives – CPA and Subregion Land Use Distribution in Acres

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| **Alpine CPA** | | | | | |
| Village | 1,284 | 1,238 | 1,238 | 957 | 677 |
| Semi-rural | 8,024 | 7,935 | 7,952 | 6,902 | 35,505 |
| Rural | 15,396 | 15,552 | 15,552 | 16,919 | 1,339 |
| Village Core Mixed Use | 41 | 41 | 41 | 41 | 0 |
| Commercial | 122 | 102 | 102 | 93 | 148 |
| Industrial | 257 | 255 | 239 | 214 | 92 |
| Office Professional | 5 | 5 | 5 | 5 | 10 |
| State and Federal Land | 34,005 | 34,005 | 34,005 | 34,005 | 20,907 |
| Public/Semi Public and Recreational Open Space | 716 | 715 | 715 | 715 | 1,164 |
| Specific Plan Area | 42 | 42 | 42 | 42 | 42 |
| Tribal Lands | 8,264 | 8,264 | 8,264 | 8,264 | 8,253 |
| **Total CPA** | **68,156** | **68,154** | **68,155** | **68,157** | **68,136** |
| **Bonsall CPA** | | | | | |
| Village | 334 | 334 | 334 | 334 | 190 |
| Semi-Rural | 14,954 | 14,953 | 14,954 | 10,110 | 16,047 |
| Rural | 3,552 | 3,553 | 3,553 | 8,397 | 1,127 |
| Commercial | 70 | 70 | 70 | 70 | 70 |
| Office Professional | 10 | 10 | 10 | 10 | 9 |
| State and Federal Land | 191 | 191 | 191 | 191 | 0 |
| Public/Semi Public and Recreational Open Space | 1,396 | 1,393 | 1,393 | 1,393 | 1,213 |
| Specific Plan Area | 534 | 534 | 534 | 534 | 2,377 |
| **Total CPA** | **21,038** | **21,038** | **21,039** | **21,039** | **21,033** |
| **Central Mountain Subregion** | | | | | |
| **Central Mountain Subregion - Cuyamaca** | | | | | |
| Semi-Rural | 765 | 765 | 765 | 765 | 118 |
| Rural | 7,896 | 7,895 | 7,895 | 7,896 | 0 |
| Commercial | 2 | 2 | 2 | 2 | 0 |
| State and Federal Land | 34,996 | 34,996 | 34,996 | 34,996 | 43,741 |
| Public/Semi Public and Recreational Open Space | 164 | 164 | 164 | 164 | 0 |
| Tribal Lands | 845 | 845 | 845 | 845 | 808 |
| *Total Subarea* | *44,668* | *44,667* | *44,667* | *44,668* | *44,668* |
| **Central Mountain Subregion - Descanso** | | | | | |
| Village | 157 | 157 | 157 | 157 | 120 |
| Semi-Rural | 461 | 393 | 461 | 291 | 1,222 |
| Rural | 6,658 | 6,727 | 6,658 | 6,827 | 0 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Commercial | 14 | 14 | 14 | 14 | 11 |
| State and Federal Land | 12,670 | 12,670 | 12,670 | 12,670 | 18,926 |
| Public/Semi Public and Preserve Lands | 512 | 512 | 512 | 512 | 109 |
| Specific Plan Area | 0 | 0 | 0 | 0 | 83 |
| Tribal Lands | 468 | 468 | 468 | 468 | 468 |
| *Total Subarea* | *20,940* | *20,941* | *20,940* | *20,939* | *20,938* |
| **Central Mountain Subregion - Pine Valley** | | | | | |
| Village | 572 | 572 | 572 | 572 | 500 |
| Semi-Rural | 363 | 363 | 363 | 213 | 1,001 |
| Rural | 15,275 | 15,275 | 15,275 | 15,425 | 0 |
| Commercial | 27 | 27 | 27 | 27 | 32 |
| Industrial | 2 | 2 | 2 | 2 | 0 |
| Office Professional | 5 | 5 | 5 | 5 | 8 |
| State and Federal Land | 75,047 | 75,047 | 75,047 | 75,047 | 90,595 |
| Public/Semi Public and Recreational Open Space | 1,199 | 1,199 | 1,199 | 1,199 | 18 |
| Tribal Lands | 195 | 195 | 195 | 195 | 530 |
| *Total Subarea* | *92,685* | *92,685* | *92,685* | *92,685* | *92,685* |
| **Central Mountain Subregion - Remainder** | | | | | |
| Rural | 5,862 | 5,861 | 5,861 | 5,861 | 2,042 |
| Semi-rural | 0 | 0 | 0 | 0 | 649 |
| State and Federal Land | 30,675 | 30,675 | 30,675 | 30,675 | 33,845 |
| Tribal Lands | 8,483 | 8,483 | 8,483 | 8,483 | 8,483 |
| *Total Subarea* | *45,020* | *45,019* | *45,019* | *45,019* | *45,019* |
| **Total Subregion** | **203,313** | **203,312** | **203,311** | **203,311** | **203,310** |
| **County Islands CPA** | | | | | |
| Village | 175 | 228 | 228 | 228 | 352 |
| Semi-rural | 0 | 0 | 0 | 0 | 28 |
| Rural | 79 | 0 | 0 | 0 | 0 |
| Office Professional | 0 | 25 | 25 | 25 | 0 |
| State and Federal Land | 0 | 0 | 0 | 0 | 0 |
| Public/Semi Public and Recreational Open Space | 259 | 259 | 259 | 259 | 80 |
| Extractive | NA | NA | NA | NA | 48 |
| **Total CPA** | **513** | **512** | **512** | **512** | **508** |
| **Crest/Dehesa Subregion** | | | | | |
| Village | 0 | 0 | 0 | 0 | 371 |
| Semi-rural | 5,749 | 5,481 | 5,484 | 4,809 | 12,404 |
| Rural | 7,574 | 7,842 | 7,839 | 8,513 | 3,243 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Commercial | 15 | 15 | 15 | 8 | 15 |
| State and Federal Land | 4,115 | 4,116 | 4,116 | 4,116 | 0 |
| Public/Semi Public and Recreational Open Space | 120 | 120 | 120 | 120 | 35 |
| Specific Plan Area | 1,812 | 1,812 | 1,812 | 1,812 | 3,507 |
| Tribal Lands | 803 | 803 | 803 | 803 | 632 |
| **Total Subregion** | **20,188** | **20,189** | **20,189** | **20,181** | **20,207** |
| **Desert Subregion** | | | | | |
| **Desert Subregion - Borrego Springs** | | | | | |
| Village | 2,594 | 2,,595 | 2,465 | 2,465 | 2,854 |
| Semi-Rural | 13,429 | 13,428 | 11,455 | 2,594 | 42,665 |
| Rural | 33,040 | 33,040 | 35,143 | 44,003 | 4,291 |
| Commercial | 585 | 585 | 585 | 585 | 581 |
| Industrial | 171 | 171 | 171 | 171 | 163 |
| Office Professional | 27 | 27 | 27 | 27 | 57 |
| State and Federal Land | 19,435 | 19,435 | 19,435 | 19,435 | 19,196 |
| Public/Semi Public and Recreational Open Space | 1,209 | 1,209 | 1,209 | 1,209 | 328 |
| Specific Plan Area | 4,344 | 4,344 | 4,344 | 4,344 | 4,697 |
| *Total Subarea* | *74,834* | *74,834* | *74,834* | *74,833* | *74,832* |
| **Desert Subregion - Remainder** | | | | | |
| Semi-Rural | 1,795 | 1,646 | 1,646 | 1,164 | 68,769 |
| Rural | 40,286 | 40,470 | 40,470 | 40,952 | 0 |
| Commercial | 70 | 70 | 70 | 70 | 0 |
| State and Federal Land | 480,998 | 480,997 | 480,997 | 480,997 | 453,764 |
| Public/Semi Public and Recreational Open Space | 506 | 471 | 471 | 471 | 1,704 |
| Tribal Lands | 656 | 656 | 656 | 656 | 0 |
| *Total Subarea* | *524,311* | *524,310* | *524,310* | *524,310* | *524,237* |
| **Total Subregion** | **599,145** | **599,144** | **599,144** | **599,143** | **599,069** |
| **Fallbrook CPA** | | | | | |
| Village | 3,874 | 3,873 | 3,972 | 3,661 | 3,964 |
| Semi-Rural | 17,420 | 17,120 | 17,045 | 16,691 | 25,406 |
| Rural | 8,726 | 9,031 | 9,032 | 9,888 | 706 |
| Village Core Mixed Use | 118 | 110 | 110 | 110 | 127 |
| Commercial | 240 | 244 | 222 | 193 | 188 |
| Industrial | 271 | 271 | 267 | 105 | 86 |
| Office Professional | 19 | 19 | 19 | 19 | 24 |
| Neighborhood Professional | NA | NA | NA | NA | 2 |
| State and Federal Land | 1,871 | 1,871 | 1,871 | 1,871 | 0 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Public/Semi Public and Recreational Open Space | 2,073 | 2,073 | 2,073 | 2,073 | 3,245 |
| Specific Plan Area | 1,482 | 1,482 | 1,482 | 1,482 | 2,349 |
| **Total CPA** | **36,094** | **36,094** | **36,093** | **36,093** | **36,093** |
| **Jamul/Dulzura Subregion** | | | | | |
| Semi-rural | 18,135 | 17,776 | 17,731 | 6,075 | 77,925 |
| Rural | 30,576 | 30,936 | 30,981 | 42,636 | 3,872 |
| Commercial | 104 | 104 | 104 | 104 | 70 |
| Office Professional | 10 | 10 | 10 | 10 | 10 |
| Neighborhood Professional | NA | NA | NA | NA | 30 |
| State and Federal Land | 54,312 | 54,293 | 54,293 | 54,998 | 17,713 |
| Public/Semi Public and Recreational Open Space | 495 | 514 | 514 | 514 | 472 |
| Specific Plan Area | 3,726 | 3,726 | 3,726 | 3,021 | 7,221 |
| Tribal Lands | 6 | 6 | 6 | 6 | 0 |
| **Total Subregion** | **107,364** | **107,365** | **107,365** | **107,364** | **107,312** |
| **Julian CPA** | | | | | |
| Village | 27 | 27 | 27 | 27 | 44 |
| Semi-Rural | 4,770 | 4,770 | 4,770 | 2,250 | 31,623 |
| Rural | 20,423 | 20,423 | 20,423 | 22,943 | 0 |
| Commercial | 86 | 86 | 86 | 86 | 98 |
| Industrial | 47 | 47 | 47 | 47 | 32 |
| State and Federal Land | 6,806 | 6,806 | 6,806 | 6,806 | 0 |
| Public/Semi Public and Recreational Open Space | 1,226 | 1,226 | 1,226 | 1,226 | 1,588 |
| **Total CPA** | **33,385** | **33,385** | **33,385** | **33,385** | **33,385** |
| **Lakeside CPA** | | | | | |
| Village | 5,701 | 5,701 | 5,701 | 5,703 | 5,603 |
| Semi-rural | 8,925 | 8,928 | 8,928 | 5,571 | 23,482 |
| Rural | 10,615 | 10,637 | 10,637 | 14,045 | 9,353 |
| Commercial | 404 | 404 | 404 | 404 | 427 |
| Industrial | 1,037 | 1,011 | 1,011 | 958 | 744 |
| Office Professional | 6 | 6 | 6 | 6 | 16 |
| Neighborhood Professional | NA | NA | NA | NA | 29 |
| State and Federal Land | 13,915 | 13,914 | 13,914 | 13,914 | 0 |
| Public/Semi Public and Recreational Open Space | 972 | 972 | 972 | 972 | 1,230 |
| Specific Plan Area | 4,152 | 4,152 | 4,152 | 4,152 | 5,129 |
| Tribal Lands | 302 | 302 | 302 | 302 | 0 |
| **Total CPA** | **46,029** | **46,027** | **46,027** | **46,027** | **46,011** |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| **Mountain Empire Subregion** | | | | | |
| **Mountain Empire Subregion - Boulevard** | | | | | |
| Village | 25 | 25 | 25 | 25 | 35 |
| Semi-Rural | 2,307 | 2,307 | 2,307 | 264 | 35,852 |
| Rural | 28,453 | 28,460 | 28,460 | 30,503 | 0 |
| Commercial | 177 | 177 | 177 | 177 | 145 |
| State and Federal Land | 8,651 | 8,651 | 8,651 | 8,651 | NA |
| Public/Semi Public and Recreational Open Space | 933 | 926 | 926 | 926 | 2,341 |
| Specific Plan Area | 0 | 0 | 0 | 0 | 2,269 |
| Tribal Lands | 14,805 | 14,805 | 14,805 | 14,805 | 14,637 |
| *Total Subarea* | *55,351* | *55,351* | *55,351* | *55,351* | *55,279* |
| **Mountain Empire Subregion - Jacumba** | | | | | |
| Village | 82 | 82 | 82 | 82 | 3 |
| Semi-Rural | 654 | 653 | 653 | 129 | 10,011 |
| Rural | 8,459 | 8,459 | 8,459 | 8,983 | 0 |
| Commercial | 31 | 31 | 31 | 31 | 22 |
| Office Professional | 0 | 0 | 0 | 0 | 2 |
| State and Federal Land | 10,371 | 10,371 | 10,371 | 10,371 | 2,369 |
| Public/Semi Public and Recreational Open Space | 750 | 750 | 750 | 750 | 7,863 |
| Specific Plan Area | 1,425 | 1,425 | 1,425 | 1,425 | 1,461 |
| *Total Subarea* | *21,772* | *21,771* | *21,771* | *21,771* | *21,733* |
| **Mountain Empire Subregion – Lake Morena/Campo** | | | | | |
| Village | 160 | 160 | 160 | 160 | 280 |
| Semi-Rural | 4,747 | 4,747 | 4,747 | 812 | 27,333 |
| Rural | 21,080 | 21,078 | 21,078 | 25,023 | 0 |
| Commercial | 53 | 53 | 53 | 53 | 67 |
| Industrial | 6 | 6 | 6 | 6 | 8 |
| State and Federal Land | 27,662 | 27,662 | 27,662 | 27,662 | 12,257 |
| Public/Semi Public and Preserve Lands | 892 | 894 | 894 | 894 | 14,913 |
| Tribal Lands | 1,006 | 1,006 | 1,006 | 1,006 | 608 |
| *Total Subarea* | *55,606* | *55,606* | *55,606* | *55,616* | *55,466* |
| **Mountain Empire Subregion - Potrero** | | | | | |
| Semi-Rural | 2,834 | 2,841 | 2,841 | 191 | 19,390 |
| Rural | 12,306 | 12,306 | 12,306 | 14,975 | 0 |
| Commercial | 50 | 44 | 44 | 23 | 17 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| State and Federal Land | 8,719 | 8,719 | 8,719 | 8,719 | 2,503 |
| Public/Semi Public and Recreational Open Space | 140 | 140 | 140 | 140 | 2,103 |
| *Total Subarea* | *24,049* | *24,050* | *24,050* | *24,048* | *24,012* |
| **Mountain Empire Subregion - Tecate** | | | | | |
| Semi Rural | 103 | 227 | 227 | 81 | 3,854 |
| Rural | 3,582 | 3,619 | 3,619 | 3,765 | 0 |
| Commercial | 95 | 47 | 47 | 47 | 45 |
| Industrial | 346 | 233 | 233 | 233 | 217 |
| State and Federal Land | 1,396 | 1,396 | 1,396 | 1,396 | 0 |
| Public/Semi Public and Recreational Open Space | 59 | 59 | 59 | 59 | 1,413 |
| *Total Subarea* | *5,581* | *5,581* | *5,581* | *5,581* | *5,528* |
| **Mountain Empire Subregion - Remainder** | | | | | |
| Semi-rural | 0 | 0 | 0 | 0 | 7,578 |
| Rural | 5,446 | 5,446 | 5,445 | 5,445 | 0 |
| State and Federal Land | 123,592 | 123,596 | 123,596 | 123,596 | 98,054 |
| Public/Semi Public and Preserve Lands | 170 | 170 | 170 | 170 | 25,105 |
| Tribal Lands | 12,682 | 12,679 | 12,679 | 12,679 | 11,139 |
| *Total Subarea* | *141,890* | *141,891* | *141,890* | *141,890* | *141,876* |
| **Total Subregion** | **304,249** | **304,250** | **304,249** | **304,257** | **303,895** |
| **North County Metro Subregion** | | | | | |
| **North County Metro Subregion - Hidden Meadows** | | | | | |
| Village | 132 | 132 | 132 | 132 | 150 |
| Semi-Rural | 5,067 | 5,067 | 5,067 | 4,822 | 8,138 |
| Rural | 2,137 | 2,168 | 2,168 | 2,412 | 148 |
| Commercial | 77 | 48 | 48 | 50 | 63 |
| Office Professional | 7 | 7 | 7 | 0 | 0 |
| Public/Semi Public and Recreational Open Space | 391 | 391 | 391 | 391 | 0 |
| Specific Plan Area | 2,318 | 2,318 | 2,318 | 2,318 | 1,621 |
| *Total Subarea* | *10,129* | *10,131* | *10,131* | *10,125* | *10,120* |
| **North County Metro Subregion - Twin Oaks** | | | | | |
| Semi-Rural | 5,262 | 5,218 | 5,230 | 2,532 | 8,097 |
| Rural | 2,612 | 2,656 | 2,690 | 5,439 | 0 |
| Commercial | 59 | 50 | 50 | 56 | 59 |
| Industrial | 45 | 46 | 0 | 0 | 30 |
| Office Professional | 51 | 46 | 51 | 0 | 0 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Public/Semi Public and Recreational Open Space | 162 | 170 | 170 | 170 | 0 |
| *Total Subarea* | *8,191* | *8,186* | *8,191* | *8,197* | *8,187* |
| **North County Metro Subregion - Remainder** | | | | | |
| Village | 5,984 | 5,483 | 5,490 | 5,490 | 3,413 |
| Semi-Rural | 9,807 | 7,152 | 7,147 | 6,767 | 32,009 |
| Rural | 14,688 | 17,871 | 17,871 | 18,253 | 820 |
| Commercial | 86 | 65 | 62 | 62 | 73 |
| Industrial | 52 | 52 | 52 | 52 | 62 |
| Office Professional | 8 | 8 | 8 | 8 | 9 |
| State and Federal Land | 5,560 | 5,560 | 5,560 | 5,560 | 0 |
| Public/Semi Public and Recreational Open Space | 660 | 660 | 660 | 660 | 881 |
| Specific Plan Area | 476 | 471 | 471 | 471 | 0 |
| *Total Subarea* | *37,321* | *37,322* | *37,321* | *37,323* | *37,267* |
| **Total Subregion** | **55,641** | **55,639** | **55,643** | **55,645** | **55,574** |
| **North Mountain Subregion** | | | | | |
| **North Mountain Subregion - Palomar Mountain** | | | | | |
| Semi-Rural | 0 | 0 | 0 | 0 | 1,070 |
| Rural | 14,319 | 14,319 | 14,319 | 14,319 | 0 |
| State and Federal Land | 51,687 | 51,687 | 51,687 | 51,687 | 61,078 |
| Public/Semi Public and Recreational Open Space | 124 | 124 | 124 | 124 | 3,971 |
| Telecommunications | NA | NA | NA | NA | 78 |
| Tribal Lands | 8,699 | 8,699 | 8,699 | 8,699 | 8,628 |
| *Total Subarea* | *74,829* | *74,829* | *74,829* | *74,829* | *74,825* |
| **North Mountain Subregion - Remainder** | | | | | |
| Village | 176 | 176 | 176 | 176 | 0 |
| Semi-Rural | 7,740 | 4,574 | 4,770 | 564 | 98,848 |
| Rural | 68,685 | 72,042 | 71,657 | 75,863 | 0 |
| Commercial | 55 | 55 | 55 | 55 | 23 |
| State and Federal Land | 116,888 | 116,888 | 116,888 | 116,888 | 52,938 |
| Public/Semi Public and Preserve Lands | 88 | 88 | 88 | 88 | 42,047 |
| Specific Plan Area | 2,972 | 2,972 | 2,972 | 2,972 | 2,864 |
| Tribal Lands | 40,302 | 40,302 | 40,302 | 40,302 | 40,187 |
| *Total Subarea* | *236,906* | *237,097* | *236,908* | *236,908* | *236,907* |
| **Total Subregion** | **311,735** | **311,926** | **311,737** | **311,737** | **311,733** |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| **Otay Subregion** | | | | | |
| Semi-rural Residential | 0 | 0 | 0 | 0 | 15,568 |
| Rural | 880 | 880 | 880 | 880 | 4,051 |
| State and Federal Land | 21,612 | 21,612 | 21,612 | 21,612 | 0 |
| Public/Semi Public and Recreational Open Space | 1,580 | 1,580 | 1,580 | 1,580 | 3,479 |
| Specific Plan Area | 4,286 | 4,286 | 4,286 | 4,286 | 5,232 |
| **Total Subregion** | **28,355** | **28,358** | **28,358** | **28,358** | **28,331** |
| **Pala/Pauma Valley Subregion** | | | | | |
| Village | 503 | 503 | 503 | 503 | 569 |
| Semi-Rural | 10,048 | 6,284 | 5,851 | 292 | 45,181 |
| Rural | 33,694 | 37,459 | 37,893 | 43,418 | 1,578 |
| Commercial | 42 | 42 | 41 | 41 | 41 |
| State and Federal Land | 4,900 | 4,900 | 4,900 | 4,900 | 0 |
| Public/Semi Public and Recreational Open Space | 2,652 | 2,652 | 2,652 | 2,652 | 4,689 |
| Tribal Lands | 21,851 | 21,851 | 21,851 | 21,851 | 21,628 |
| **Total CPA** | **73,690** | **73,691** | **73,691** | **73,657** | **73,686** |
| **Pendleton/De Luz CPA** | | | | | |
| Semi-Rural | 2,366 | 2,366 | 2,366 | 0 | 16,249 |
| Rural | 12,646 | 12,646 | 12,646 | 15,011 | 0 |
| State and Federal Land | 147,989 | 147,989 | 147,989 | 147,989 | 146,952 |
| Public/Semi Public and Preserve Lands | 302 | 302 | 302 | 302 | 0 |
| **Total Subregion** | **163,303** | **163,303** | **163,303** | **163,302** | **163,201** |
| **Rainbow CPA** | | | | | |
| Village | 83 | 83 | 83 | 83 | 83 |
| Semi-Rural | 3,296 | 3,313 | 3,186 | 844 | 8,633 |
| Rural | 5,424 | 5,435 | 5,572 | 7,914 | 298 |
| Commercial | 61 | 33 | 30 | 33 | 35 |
| Industrial | 11 | 11 | 0 | 0 | 0 |
| State and Federal Land | 263 | 263 | 263 | 263 | 0 |
| Public/Semi Public and Recreational Open Space | 524 | 524 | 524 | 524 | 610 |
| **Total CPA** | **9,662** | **9,662** | **9,658** | **9,661** | **9,660** |
| **Ramona CPA** | | | | | |
| Village | 4,188 | 4,237 | 4,237 | 4,237 | 4,271 |
| Semi-Rural | 21,342 | 21,344 | 20,731 | 13,860 | 59,154 |
| Rural | 43,038 | 43,129 | 43,740 | 50,610 | 67 |
| Commercial | 399 | 333 | 333 | 333 | 366 |
| Industrial | 185 | 161 | 161 | 161 | 285 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Office Professional | 18 | 17 | 17 | 17 | 97 |
| State and Federal Land | 9,402 | 9,401 | 9,401 | 9,401 | 565 |
| Public/Semi Public and Preserve Lands | 1,882 | 1,835 | 1,835 | 1,835 | 8,955 |
| Specific Plan Area | 862 | 862 | 862 | 862 | 10,230 |
| Tribal Lands | 7,976 | 7,973 | 7,976 | 7,976 | 5,296 |
| **Total CPA** | **89,292** | **89,292** | **89,292** | **89,292** | **89,286** |
| **San Dieguito CPA** | | | | | |
| Village | 87 | 64 | 64 | 64 | 69 |
| Semi-Rural | 13,750 | 13,066 | 12,639 | 12,483 | 16,503 |
| Rural | 1,954 | 2,661 | 3,088 | 3,244 | 1,200 |
| Village Core Mixed Use | 13 | 13 | 13 | 13 | 0 |
| Commercial | 2 | 2 | 2 | 2 | 13 |
| Office Professional | 5 | 5 | 5 | 5 | 4 |
| Neighborhood Professional | NA | NA | NA | NA | 1 |
| State and Federal Land | 2,555 | 2,555 | 2,555 | 2,555 | 0 |
| Public/Semi Public and Recreational Open Space | 1,388 | 1,388 | 1,388 | 1,388 | 839 |
| Specific Plan Area | 10,104 | 10,104 | 10,104 | 10,104 | 11,211 |
| **Total CPA** | **29,858** | **29,858** | **29,858** | **29,858** | **29,840** |
| **Spring Valley CPA** | | | | | |
| Village | 4,716 | 4,725 | 4,725 | 4,725 | 4,500 |
| Semi-rural | 104 | 104 | 104 | 104 | 127 |
| Rural | 0 | 0 | 0 | 0 | 838 |
| Commercial | 217 | 217 | 207 | 207 | 214 |
| Industrial | 284 | 284 | 284 | 284 | 343 |
| Office Professional | 15 | 15 | 15 | 15 | 29 |
| Neighborhood Professional | NA | NA | NA | NA | 31 |
| State and Federal Land | 849 | 849 | 849 | 849 | 0 |
| Public/Semi Public and Recreational Open Space | 603 | 603 | 603 | 603 | 499 |
| Specific Plan Area | 650 | 650 | 650 | 650 | 855 |
| **Total CPA** | **7,438** | **7,437** | **7,437** | **7,437** | **7,436** |
| **Sweetwater CPA** | | | | | |
| Village | 1,985 | 1,987 | 1,987 | 1,987 | 1,931 |
| Semi-rural | 890 | 890 | 890 | 890 | 1,363 |
| Rural | 187 | 187 | 187 | 187 | 1,585 |
| Commercial | 35 | 33 | 33 | 33 | 33 |
| Office Professional | 14 | 14 | 14 | 14 | 15 |
| State and Federal Land | 3,455 | 3,455 | 3,455 | 3,455 | 0 |

**Table 4-2 (Continued)**

| Land Use Designation[(1)] | Proposed Project (Referral Map) | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project Alternative |
|---|---|---|---|---|---|
| Public/Semi Public and Recreational Open Space | 1,088 | 1,088 | 1,088 | 1,088 | 651 |
| Specific Plan Area | 0 | 0 | 0 | 0 | 2,047 |
| **Total CPA** | **7,654** | **7,654** | **7,654** | **7,654** | **7,648** |
| **Valle de Oro CPA** | | | | | |
| Village | 5,295 | 5,307 | 5,307 | 5,307 | 5,420 |
| Semi-rural | 2,549 | 2,549 | 2,549 | 2,326 | 2,739 |
| Rural | 152 | 152 | 152 | 375 | 806 |
| Commercial | 135 | 123 | 123 | 123 | 118 |
| Industrial | 2 | 2 | 2 | 2 | 0 |
| Office Professional | 24 | 24 | 24 | 24 | 24 |
| Neighborhood Professional | NA | NA | NA | NA | 20 |
| State and Federal Land | 2,316 | 2,316 | 2,316 | 2,316 | 0 |
| Public/Semi Public and Recreational Open Space | 1,228 | 1,228 | 1,228 | 1,228 | 603 |
| Specific Plan Area | 1,423 | 1,423 | 1,423 | 1,423 | 3,391 |
| **Total CPA** | **13,124** | **13,124** | **13,124** | **13,124** | **13,122** |
| **Valley Center CPA** | | | | | |
| Village | 681 | 639 | 638 | 373 | 149 |
| Semi-Rural | 30,476 | 30,160 | 29,965 | 22,259 | 46,526 |
| Rural | 14,903 | 16,055 | 16,247 | 24,225 | 0 |
| Village Core Mixed Use | 54 | 51 | 51 | 51 | 0 |
| Commercial | 235 | 156 | 164 | 156 | 160 |
| Industrial | 101 | 76 | 76 | 76 | 77 |
| Office Professional | 15 | 9 | 8 | 6 | 1 |
| State and Federal Land | 3,190 | 3,190 | 3,190 | 3,190 | 0 |
| Public/Semi Public and Recreational Open Space | 884 | 884 | 884 | 884 | 2,902 |
| Specific Plan Area | 1,582 | 903 | 903 | 903 | 2,801 |
| Tribal Lands | 3,102 | 3,102 | 3,102 | 3,102 | 2,615 |
| **Total CPA** | **55,224** | **55,224** | **55,224** | **55,225** | **55,232** |

(1) Due to improvements and imperfections in the Geographic Information Systems data there are occasionally small differences in the acreage of land use designations (usually less than 5 acres) on a community level.

Source: DPLU GIS 2008

## Table 4-3. Comparison of Alternatives – Environmental Impacts

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.1 Aesthetics** | | | | | | |
| Scenic Vistas | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Scenic Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Visual Character or Quality | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Lighting and Glare | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.2 Agricultural Resources** | | | | | | |
| Conversion of Agricultural Resources | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Land Use Conflicts | PS | LS | — | — | — | ○ |
| Indirect Conversion of Agricultural Resources | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.3 Air Quality** | | | | | | |
| Air Quality Plans | LS | LS | — | — | — | — |
| Air Quality Violations | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Non-attainment of Criteria Pollutants | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Sensitive Receptors | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Objectionable Odors | LS | LS | — | — | — | — |
| **2.4 Biological Resources** | | | | | | |
| Special Status Plant and Wildlife Species | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Riparian Habitat and Other Sensitive Natural Communities | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Federally Protected Wetlands | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Wildlife Movement Corridors and Nursery Sites | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Local Policies and Ordinances | LS | LS | — | — | — | — |
| Habitat Conservation Plans and Natural Community Conservation Plans | LS | LS | — | — | — | — |
| **2.5 Cultural Resources** | | | | | | |
| Historical Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Archaeological Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Paleontological Resources | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Human Remains | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.6 Geology and Soils** | | | | | | |
| Exposure to Seismic Related Hazards | LS | LS | — | — | — | — |
| Soil Erosion or Topsoil Loss | LS | LS | — | — | — | — |
| Soil Stability | LS | LS | — | — | — | — |
| Expansive Soils | LS | LS | — | — | — | — |
| Waste Water Disposal Systems | LS | LS | — | — | — | — |
| Unique Geologic Features | LS | LS | — | — | — | — |

**Table 4-3 (Continued)**

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.7 Hazards and Hazardous Materials** | | | | | | |
| Transport, Use, and Disposal of Hazardous Materials | LS | LS | — | — | — | — |
| Accidental Release of Hazardous Materials | LS | LS | — | — | — | — |
| Hazards to Schools | LS | LS | — | — | — | — |
| Existing Hazardous Materials Sites | LS | LS | — | — | — | — |
| Public Airports | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Private Airports | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Emergency Response and Evacuation Plans | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Wildland Fires | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Vectors | LS | LS | — | — | — | ▲ |
| **2.8 Hydrology and Water Quality** | | | | | | |
| Water Quality Standards and Requirements | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Groundwater Supplies and Recharge | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Erosion or Siltation | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Flooding | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Exceed Capacity of Stormwater Systems | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Housing within a 100-year Flood Hazard Area | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Impeding or Redirecting Flood Flows | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Dam Inundation and Flood Hazards | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Seiche, Tsunami, and Mudflow Hazards | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.9 Land Use** | | | | | | |
| Physical Division of an Established Community | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Conflicts with Land Use Plans, Policies, and Regulations | LS | LS | — | — | — | ▲ |
| Conflicts with HCPs or NCCPs | LS | LS | — | — | — | — |
| **2.10 Mineral Resources** | | | | | | |
| Mineral Resource Availability | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Mineral Resource Recovery Sites | PS | SU | ▼ | ▼ | ▼ | ▲ |
| **2.11 Noise** | | | | | | |
| Excessive Noise Levels | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Excessive Groundborne Vibration | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Permanent Increase in Ambient Noise Levels | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Temporary Increase in Ambient Noise Levels | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Excessive Noise Exposure from a Public or Private Airport | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.12 Population and Housing** | | | | | | |
| Population Growth | LS | LS | — | — | ▲ | — |
| Displacement of Housing | LS | LS | — | — | — | — |
| Displacement of People | LS | LS | — | — | — | — |

**Table 4-3 (Continued)**

| Issue Areas | Referral Map (Proposed Project) | | Alternatives to the Proposed Project | | | |
|---|---|---|---|---|---|---|
| | Without Mitigation | With Mitigation | Hybrid Map | Draft Land Use Map | Environmentally Superior Map | No Project |
| **2.13 Public Services** | | | | | | |
| Fire Protection Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Police Protection Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| School Services | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Other Public Services | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.14 Recreation** | | | | | | |
| Deterioration of Parks and Recreational Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Construction of New Recreational Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **4.15 Transportation and Traffic** | | | | | | |
| Unincorporated County Traffic and Level of Service Standards | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Adjacent Cities Traffic and Level of Service Standards | PS | SU | ▼ | ▼ | ▼ | ▼ |
| Rural Road Safety | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Emergency Access | PS | LS | — | — | — | — |
| Parking Capacity | PS | LS | — | — | — | ○ |
| Alternative Transportation | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.16 Utilities and Service Systems** | | | | | | |
| Wastewater Treatment Requirements | PS | LS | ▼ | ▼ | ▼ | ▲ |
| New Water or Wastewater Treatment Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Sufficient Stormwater Drainage Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Adequate Water Supplies | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Adequate Wastewater Facilities | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Sufficient Landfill Capacity | PS | SU | ▼ | ▼ | ▼ | ▲ |
| Solid Waste Regulations | LS | LS | — | — | — | — |
| Energy | PS | LS | ▼ | ▼ | ▼ | ▲ |
| **2.17 Global Climate Change** | | | | | | |
| Compliance with AB 32 | PS | LS | ▼ | ▼ | ▼ | ▲ |
| Effects of Global Climate Change on the Proposed Project | PS | LS | ▼ | ▼ | ▼ | ▲ |

▲ Alternative is likely to result in greater impacts to issue when compared to proposed project
— Alternative is likely to result in a similar impacts to issue when compared to proposed project
▼ Alternative is likely to result in less impacts to issue when compared to proposed project, however, impacts would still be significant before mitigation.
○ Alternative is likely to result in less impacts to issue when compared to proposed project and impacts would likely be less than significant and not require mitigation.
PS Potentially significant impact
LS Less than significant impact
SU Potentially significant and unavoidable impact

## Table 4-4. Comparison of Alternatives – Direct Conversion of Agricultural Resources

| Land Use Designation | Estimated Agricultural Area Potentially Impacted by Land Use Designation[1] (in acres) | | | |
|---|---|---|---|---|
| | Proposed Project | Hybrid Map Alternative | Draft Land Use Map | Environmentally Superior Map Alternative |
| General Commercial | 193 | 162 | 141 | 126 |
| High Impact Industrial | 168 | 169 | 169 | 169 |
| Limited Impact Industrial | 199 | 178 | 174 | 64 |
| Medium Impact Industrial | 103 | 84 | 75 | 55 |
| Neighborhood Commercial | 50 | 38 | 38 | 14 |
| Office Professional | 7 | 7 | 7 | 10 |
| Rural Commercial | 264 | 221 | 216 | 190 |
| Rural Lands (RL-20) | 2,859 | 2,738 | 2,611 | 2,806 |
| Rural Lands (RL-40) | 1,859 | 1,403 | 1,343 | 1,901 |
| Rural Lands (RL-80) | 125 | 454 | 347 | 647 |
| Rural Lands (RL-160) | 0 | 0 | 95 | 95 |
| Semi-rural Residential (SR-1) | 8,442 | 8,445 | 8,269 | 6,176 |
| Semi-rural Residential (SR-2) | 24,832 | 24,240 | 24,046 | 21,258 |
| Semi-rural Residential (SR-4) | 8,770 | 8,577 | 7,859 | 6,360 |
| Semi-rural Residential (SR-10) | 3,574 | 3,374 | 3,450 | 56 |
| Village Core Mixed Use | 57 | 49 | 49 | 49 |
| Village Residential | 4,461 | 4,245 | 4,258 | 3,749 |
| **Total** | **55,963** | **54,384** | **53,147** | **43,725** |

[1] Land Use Designations omitted were found not to have significant impacts to agriculture.
Source: DPLU GIS 2008

## Table 4-5. Comparison of Alternatives – Proposed Land Uses within Flood Areas

| Land Use Designation | Total Acres located within a Flood Area | | | |
|---|---|---|---|---|
| | Proposed Project | Hybrid Map Alternative | Draft Land Use Map | Environmentally Superior Map Alternative |
| General Commercial | 285 | 266 | 266 | 265 |
| High Impact Industrial | 71 | 71 | 71 | 71 |
| Limited Impact Industrial | 161 | 160 | 170 | 170 |
| Medium Impact Industrial | 230 | 201 | 190 | 140 |
| Military Installations | 899 | 899 | 899 | 899 |
| National Forest and State Parks | 8,738 | 8,738 | 8,738 | 8,738 |
| Neighborhood Commercial | 4 | 2 | 2 | 2 |
| Office Professional | 44 | 52 | 52 | 52 |
| Open Space (Conservation & Recreation) | 19,184 | 19,168 | 19,168 | 19,170 |
| Public/Semi-Public Lands | 1,188 | 1,189 | 1,188 | 1,189 |
| Rural Commercial | 347 | 326 | 326 | 301 |
| Rural Lands | 19,925 | 20,063 | 22,082 | 30,481 |
| Semi-Rural Residential | 15,282 | 15,199 | 13,295 | 5,550 |
| Specific Plan Area | 2,835 | 2,834 | 2,834 | 2,809 |
| Tribal Lands | 433 | 433 | 433 | 433 |
| Village Core Mixed Use | 0 | 0 | 0 | 0 |
| Village Residential | 2,824 | 2,836 | 2,721 | 2,167 |
| **Total** | **72,450** | **72,437** | **72,435** | **72,437** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 4-6. Comparison of Alternatives – Projected Housing within the San Diego County Water Authority (SDCWA) Service Area[(1)]

| | Proposed Project | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative |
|---|---|---|---|---|---|
| Units Inside SDCWA | 54,742 | 53,640 | 53,738 | 47,560 | 55,634 |
| Units Outside SDCWA | 23,664 | 21,447 | 20,928 | 16,133 | 57,766 |
| **Total** | **78,406** | **75,087** | **74,666** | **63,693** | **113,400** |

(1) Note: For the purpose of this analysis, the SDCWA service area is considered to include unincorporated areas that import water supplies from SDCWA.
Source: DPLU GIS 2008

## Table 4-7. Comparison of Alternatives – Future Housing Units by CPA and Subregion

| CPA/Subregion | Proposed Project (Referral Map) | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative (Existing General Plan) |
|---|---|---|---|---|---|
| Alpine | 3,626 | 3,583 | 3,589 | 2,783 | 2,665 |
| Bonsall | 2,080 | 1,971 | 1,840 | 1,696 | 2,872 |
| Central Mountain | 742 | 713 | 709 | 613 | 1,878 |
| County Islands | 123 | 174 | 174 | 174 | 1 |
| Crest-Dehesa | 541 | 517 | 511 | 411 | 1,236 |
| Desert | 9,237 | 8,751 | 8,244 | 6,776 | 22,432 |
| Fallbrook | 5,546 | 5,800 | 6,726 | 4,745 | 6,268 |
| Jamul-Dulzura | 2,544 | 2,297 | 2,294 | 1,781 | 5,569 |
| Julian | 614 | 483 | 441 | 406 | 1,510 |
| Lakeside | 3,880 | 3,880 | 3,880 | 3,486 | 5,592 |
| Mountain Empire | 3,416 | 3,426 | 3,424 | 2,091 | 12,101 |
| North County Metro | 13,190 | 12,345 | 12,182 | 11,525 | 8,617 |
| North Mountain | 2,421 | 1,530 | 1,428 | 1,320 | 7,197 |
| Otay | 2,243 | 2,243 | 2,243 | 2,243 | 2,371 |
| Pala-Pauma | 2,395 | 1,940 | 1,816 | 1,521 | 5,743 |
| Pendelton De Luz | 366 | 366 | 366 | 193 | 1,852 |
| Rainbow | 616 | 615 | 612 | 548 | 1,514 |
| Ramona | 6,208 | 6,321 | 6,235 | 6,066 | 9,396 |
| San Dieguito | 1,734 | 1,496 | 1,486 | 1,442 | 2,427 |
| Spring Valley | 1,441 | 1,452 | 1,452 | 1,452 | 1,229 |
| Sweet Water | 756 | 756 | 756 | 756 | 1,619 |
| Valle De Oro | 758 | 758 | 758 | 751 | 770 |
| Valley Center | 7,064 | 6,807 | 6,636 | 4,062 | 7,309 |
| **Countywide Total** | **71,540** | **68,224** | **67,803** | **56,839** | **112,167** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

## Table 4-8. Comparison of Alternatives – Habitat Impacts

| Habitat Impacted | Proposed Project (Referral Map) | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative (Existing General Plan) |
|---|---|---|---|---|---|
| Acacia Scrub | 142 | 125 | 123 | 106 | 940 |
| Alkali Marsh | 47 | 48 | 47 | 47 | 369 |
| Alkali Meadows and Seeps | 3 | 2 | 1 | 1 | 56 |
| Alkali Playa Community | 185 | 162 | 162 | 163 | 482 |
| Alkali Seep | 340 | 340 | 338 | 176 | 749 |
| Alluvial Fan Scrub | 77 | 69 | 61 | 41 | 342 |
| Black Oak Forest | 70 | 56 | 56 | 34 | 253 |
| Black Oak Woodland | 548 | 474 | 474 | 416 | 809 |
| Chaparral | 55,058 | 49,077 | 47,546 | 36,176 | 160,499 |
| Coast Live Oak Forest | 206 | 111 | 100 | 78 | 484 |
| Coast Live Oak Woodland | 9,601 | 8,423 | 8,230 | 6,390 | 21,991 |
| Coast Range, Klamath and Peninsular Coniferous Forest | 2 | 1 | 1 | 1 | 2 |
| Coastal Sage-Chaparral Scrub | 2,864 | 2,745 | 2,675 | 2,135 | 17,364 |
| Coastal Scrub | 22 | 22 | 22 | 22 | 33 |
| Colorado Desert Wash Scrub | 212 | 205 | 204 | 108 | 439 |
| Desert Dry Wash Woodland | 259 | 296 | 213 | 151 | 1,008 |
| Desert Dunes | 74 | 57 | 55 | 50 | 330 |
| Desert Saltbush Scrub | 3,030 | 2,912 | 2,736 | 2,207 | 6,653 |
| Desert Sink Scrub | 126 | 106 | 106 | 83 | 709 |
| Diegan Coastal Sage Scrub | 31,186 | 28,838 | 28,463 | 25,287 | 88,992 |
| Disturbed Wetland | 60 | 61 | 60 | 56 | 220 |
| Dry Montane Meadows | 29 | 17 | 17 | 15 | 103 |
| Encelia Scrub | 503 | 411 | 338 | 241 | 3,139 |
| Engelmann Oak Woodland | 3,261 | 1,998 | 1,669 | 1,401 | 10,494 |
| Estuarine | 1 | 1 | 1 | 1 | 4 |
| Field/Pasture | 8,406 | 8,212 | 7,813 | 6,754 | 14,676 |
| Flat-topped Buckwheat | 711 | 663 | 625 | 470 | 2,946 |
| Foothill/Mountain Perennial Grassland | 1,443 | 1,065 | 1,000 | 516 | 17,317 |
| Freshwater | 420 | 402 | 397 | 352 | 5,466 |
| Freshwater Marsh | 120 | 117 | 116 | 101 | 750 |
| Freshwater Seep | 152 | 152 | 150 | 110 | 595 |
| Great Basin Scrub | 433 | 375 | 380 | 245 | 1,955 |
| Interior Live Oak Chaparral | 18 | 11 | 7 | 7 | 77 |
| Jeffrey Pine Forest | 104 | 103 | 103 | 98 | 257 |
| Lower Montane Coniferous Forest | 5,293 | 4,721 | 4,506 | 4,134 | 8,293 |
| Mafic Chaparral | 141 | 142 | 138 | 118 | 437 |
| Marine | 0 | 0 | 0 | 0 | 43 |

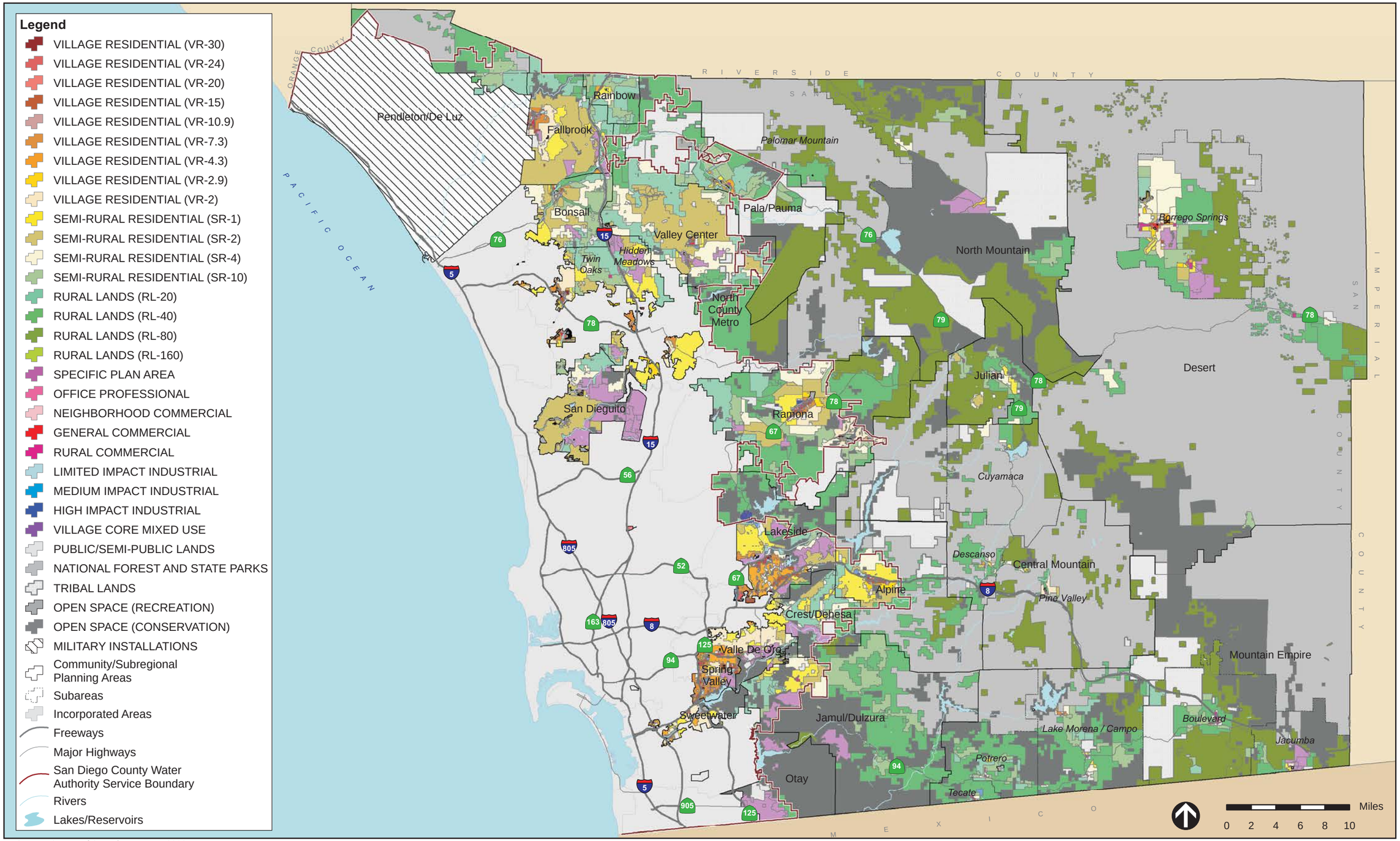
**Table 4-8 (Continued)**

| Habitat Impacted | Proposed Project (Referral Map) | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative (Existing General Plan) |
|---|---|---|---|---|---|
| Maritime Succulent Scrub | 6 | 6 | 6 | 6 | 6 |
| Meadow and Seep | 46 | 38 | 36 | 36 | 332 |
| Mesquite Bosque | 613 | 484 | 468 | 334 | 2,369 |
| Mixed Evergreen Forest | 610 | 432 | 432 | 334 | 2,229 |
| Mixed Oak Woodland | 1,389 | 958 | 915 | 731 | 5,508 |
| Mojavean Desert Scrub | 128 | 118 | 118 | 92 | 336 |
| Montane Chaparral | 414 | 239 | 219 | 207 | 2,467 |
| Montane Meadow | 30 | 25 | 23 | 23 | 171 |
| Mule Fat Scrub | 170 | 151 | 150 | 130 | 598 |
| Native Grassland | 4,233 | 4,004 | 3,930 | 3,472 | 36,913 |
| Non-Native Grassland | 14,005 | 13,336 | 13,084 | 11,643 | 34,686 |
| Non-Vegetated Channel, Floodway, Lakeshore Fringe | 292 | 285 | 283 | 271 | 2,187 |
| Oak Woodland | 15 | 15 | 15 | 15 | 194 |
| Open Water | 11 | 11 | 11 | 8 | 1,496 |
| Pasture | 4 | 4 | 4 | 4 | 4 |
| Peninsular Pinon and Juniper Woodlands | 161 | 139 | 127 | 118 | 2,317 |
| Red Shank Chaparral | 4,325 | 2,715 | 2,652 | 2,048 | 16,998 |
| Riparian and Bottomland Habitat | 3 | 3 | 3 | 3 | 3 |
| Riparian Forests | 13 | 13 | 13 | 13 | 16 |
| Riparian Woodlands | 22 | 20 | 19 | 17 | 180 |
| Riversidian Sage Scrub | 16 | 8 | 8 | 8 | 76 |
| Scrub Oak Chaparral | 186 | 134 | 134 | 120 | 1,262 |
| Semi-Desert Chaparral | 1,952 | 1,805 | 1,741 | 1,324 | 22,603 |
| Sonoran Creosote Bush Scrub | 10,775 | 10,236 | 9,239 | 6,938 | 25,932 |
| Sonoran Desert Mixed Scrub | 2,287 | 2,129 | 2,020 | 1,339 | 9,673 |
| Sonoran Wash Scrub | 119 | 110 | 96 | 65 | 633 |
| Southern Arroyo Willow Riparian Forest | 5 | 5 | 4 | 4 | 141 |
| Southern Coast Live Oak Riparian Forest | 3,085 | 2,903 | 2,874 | 2,361 | 6,564 |
| Southern Cottonwood-willow Riparian Forest | 1,206 | 1,149 | 1,133 | 1,010 | 4,334 |
| Southern Foredunes | 0 | 0 | 0 | 0 | 259 |
| Southern Interior Cypress Forest | 17 | 17 | 17 | 11 | 91 |
| Southern Maritime Chaparral | 337 | 334 | 334 | 334 | 349 |
| Southern Riparian Forest | 337 | 317 | 306 | 179 | 1,163 |
| Southern Riparian Scrub | 965 | 925 | 910 | 766 | 3,025 |
| Southern Sycamore-alder Riparian Woodland | 595 | 577 | 574 | 483 | 2,452 |
| Southern Willow Scrub | 396 | 386 | 383 | 348 | 5,241 |

**Table 4-8 (Continued)**

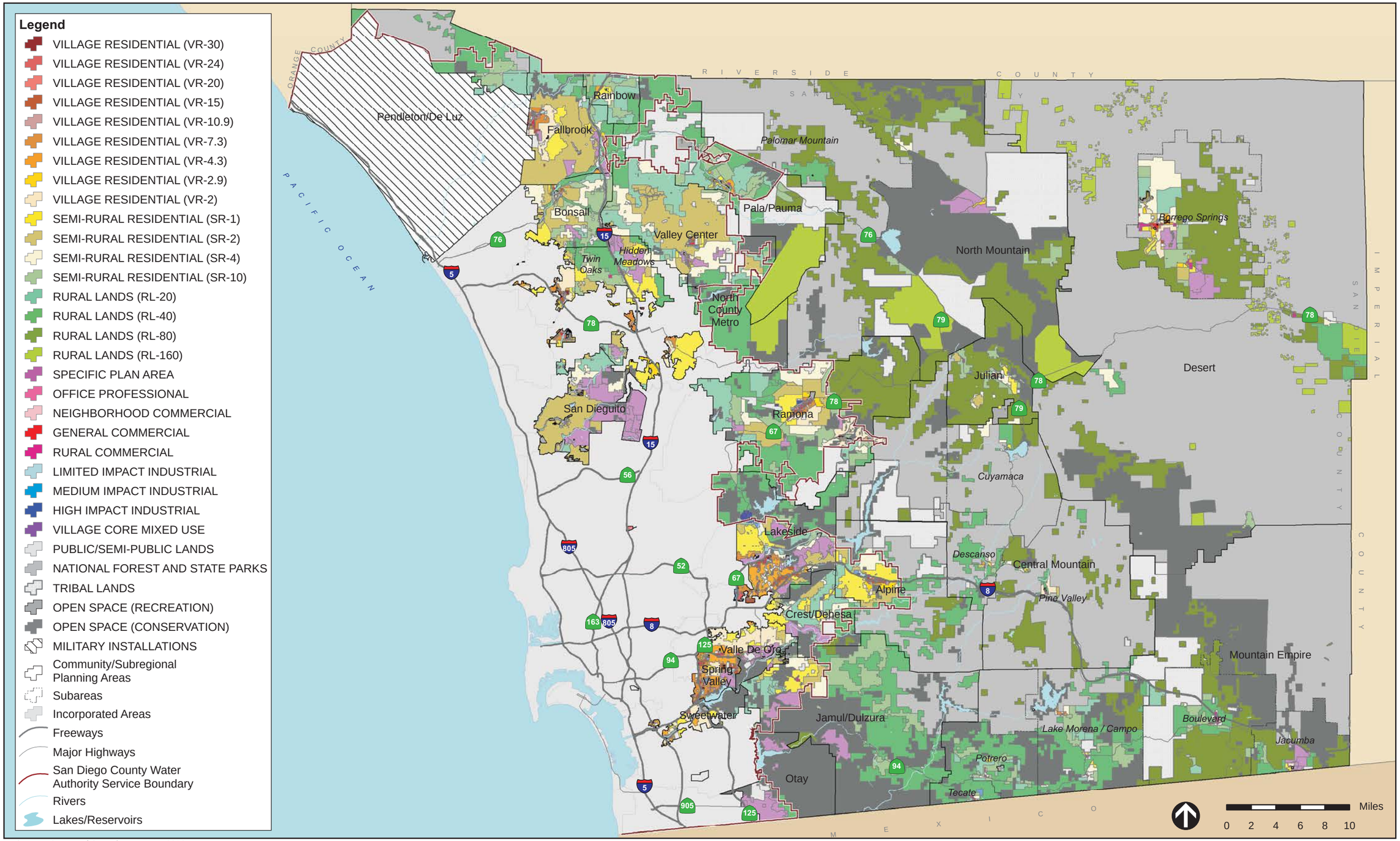
| Habitat Impacted | Proposed Project (Referral Map) | Hybrid Map Alternative | Draft Land Use Map Alternative | Environmentally Superior Map Alternative | No Project Alternative (Existing General Plan) |
|---|---|---|---|---|---|
| Stabilized Alkaline Dunes | 2 | 2 | 2 | 1 | 8 |
| Tamarisk Scrub | 29 | 29 | 29 | 29 | 95 |
| Undifferentiated Woodland | 150 | 82 | 63 | 57 | 286 |
| Upper Sonoran Ceanothus Chaparral | 200 | 200 | 200 | 141 | 3,042 |
| Upper Sonoran Subshrub Scrub | 102 | 101 | 101 | 65 | 3,618 |
| Vernal Pool | 12 | 12 | 12 | 12 | 225 |
| Wet Montane Meadow | 194 | 130 | 128 | 122 | 3,436 |
| White Alder Riparian Forest | 34 | 32 | 31 | 31 | 85 |
| **Total Impacts** | **174,638** | **157,139** | **151,780** | **123,544** | **572,879** |

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008



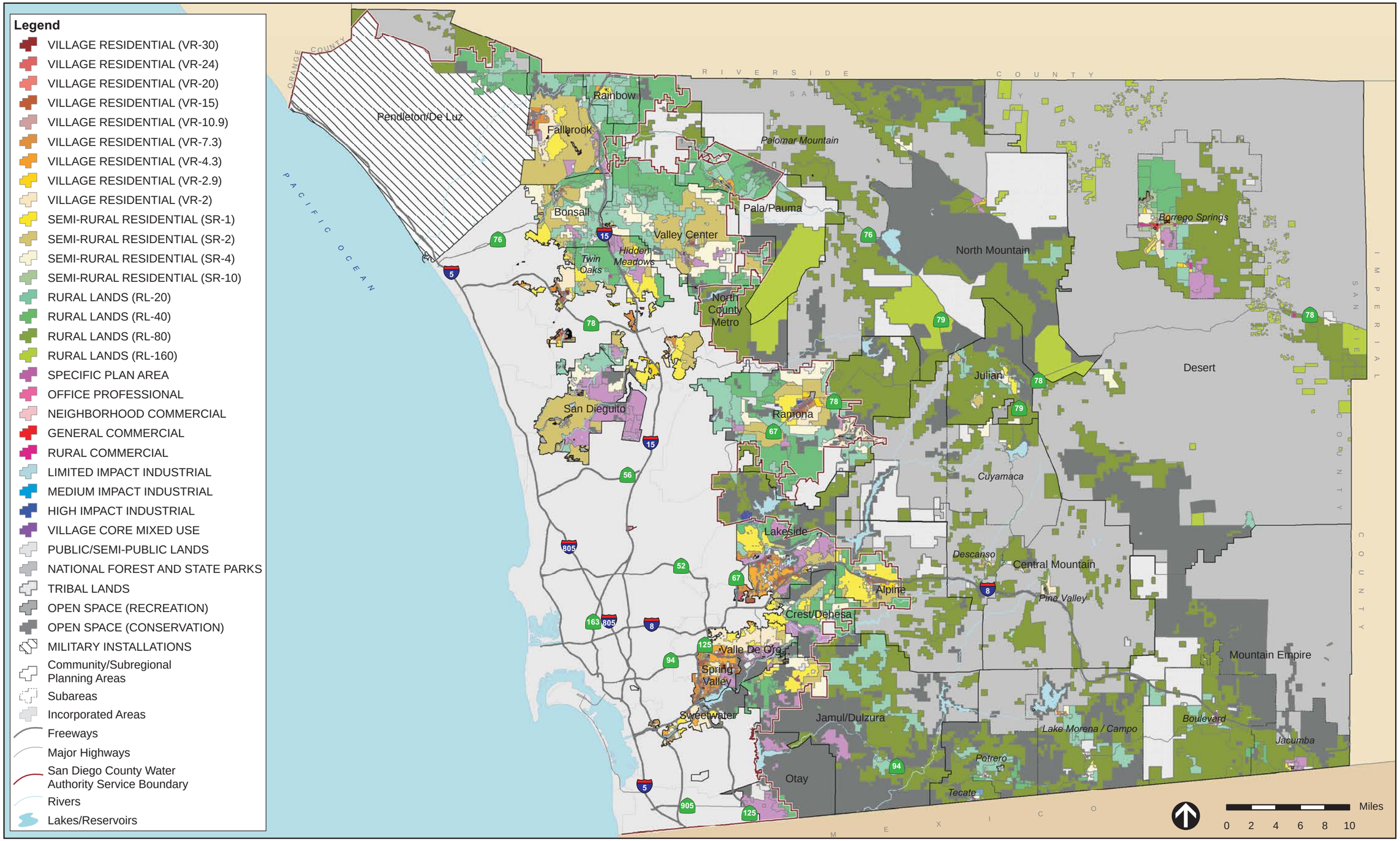

Source: County of San Diego DPLU, 2008

**HYBRID MAP ALTERNATIVE** **FIGURE 4-1**

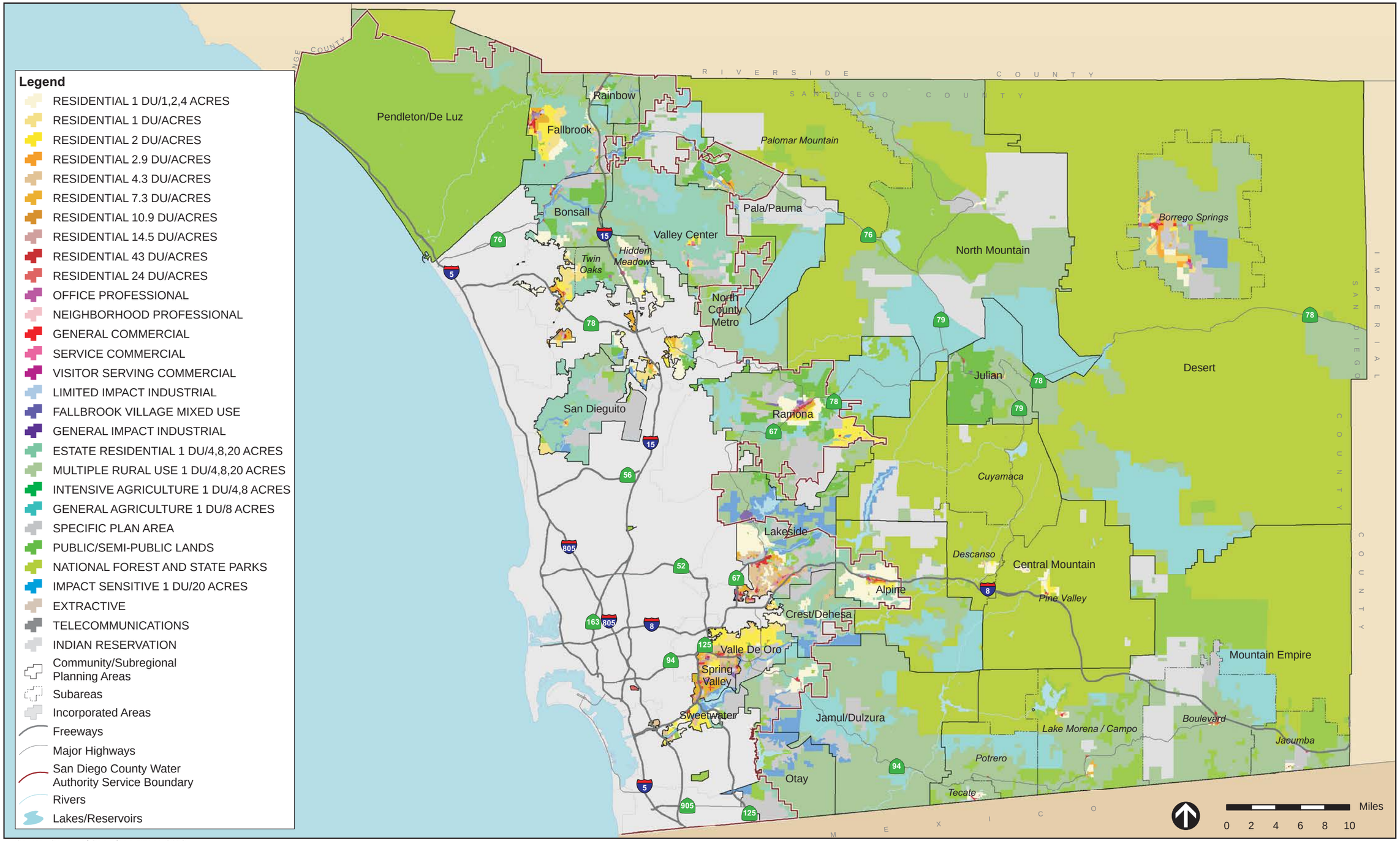



Source: County of San Diego DPLU, 2008

**DRAFT LAND USE MAP ALTERNATIVE** **FIGURE 4-2**




Source: County of San Diego DPLU, 2008




Source: County of San Diego DPLU, 2008

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