DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

GILLESPIE FIELD 70-ACRE REDEVELOPMENT PROJECT
SCH# 2005111092

Lead Agency:

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

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County of San Diego
Department of Public Works
Airports Division

September 2011

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
ACIP	Airport Capital Improvement Program
ADT	Average Daily Trips
AIA	Airport Influence Area
ALP	Gillespie Field Airport Layout Plan
ALUCP	Airport Land Use Compatibility Plan
AMEC	AMEC Earth& Environmental, Inc
ASM	ASM Affiliates
BAU	Business As Usual
BEP	Business Emergency Plan
BMP	Best Management Practices
BO	Biological Opinion
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Boar
CBSC	California Building Standards Commission
CCAR	California Climate Action Registry
CCR	California Code of Regulation
CEC	California Energy Commission
CECRLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CH_4	methane
CHHLS	California Human Health Screening Levels
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	Carbon dioxide equivalent
County	County of San Diego
CWA	Clean Water Act
dBA	a-weighted decibel(s)
DEH	Department of Environmental Health
DNL	day-night noise level
DPLU	Department of Planning and Land Use
DPW	Department of Public Works
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EDDA	Environmental Due Diligence Audit
EDR	Environmental Data Resources, Inc.
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Site Assessment

ACRONYMS AND ABBREVIATIONS (Cont.)

FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	the Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GBSC	Green Building Standards Code
GHG	greenhouse gas
GWP	global warming potential
H&SC	Health and Safety Code
HCF	hydrofluorocarbon
I-8	Interstate 8
ILV	Intersecting Lane Vehicles
IMP	Integrated Management Practices
LEA	Local Enforcement Agency
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LOS	Level of Service
MMT	millions of metric tons
MOM	San Diego Museum of Man
MPG	miles per gallon
MPO	metropolitan planning organization
MSCP	Multiple Species Conservation Program
MSL	above mean seal level
MT	metric tons
MBTA	Migratory Bird Treaty Act
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	California Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHTSA	Department of Transportation's National Highway Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSLU	noise sensitive land uses
O_3	ozone
OPR	Office of Planning and Research
PCB	polychlorinated biphenyl
PDMWD	Padre Dam Municipal Water District
PEIR	Program Environmental Impact Report
PFC	perfluorocarbons
PFE	Public Facilities Element
PIA	Project Impact Area
PM	particulate matter
ppm	parts per million
PRG	Preliminary Remediation Goal
RAQS	Regional Air Quality Strategy
RBCA	Risk Based Corrective Action

ACRONYMS AND ABBREVIATIONS (Cont.)

RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
RPO	Resource Protection Ordinance
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act of 1986
SCIC	South Coastal Information Center
SCS	sustainable communities strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDRAA	San Diego Regional Airport Authority
SDCGHGI	San Diego County Greenhouse Gas Inventory
SDG&E	San Diego Gas and Electric
SERC	State Emergency Response Commission
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLT	screening level threshold
SO_2	sulfur dioxide
SPM	scoping plan measures
SR	State Route
SUSMP	Standard Urban Storm Water Mitigation Plan
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAIC	Technology Associates International Corporation
T-BACT	Toxic - Best Available Control Technology
TCA	trichloroethane
TCE	trichloroethylene
TIF	Transportation Impact Fee
TMDL	total maximum daily load
TPH	total petroleum hydrocarbon
UFC	Uniform Fire Code
USC	United States Code
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VOC	volatile organic compounds

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SUMMARY

S.1 Project Synopsis

The County of San Diego (County) Department of Public Works (DPW) proposes to redevelop a vacant 70-acre site (Proposed Project site) located in the southeastern corner of Gillespie Field with aviation uses. Gillespie Field is a 757-acre publicly owned facility located in the County of San Diego within the municipal limits of the City of El Cajon, with the exception of a small portion within the City of Santee. The discretionary action triggering the California Environmental Quality Act (CEQA) is the acceptance of funds from the Federal Aviation Administration (FAA) to redevelop a 70-acre site at Gillespie Field, and to advertise and award a construction contract for installation of public infrastructure facilities. FAA funds will only be used for public infrastructure; FAA funds will not be used for the future private development. This redevelopment would alleviate the existing unmet demand for based aviation support facilities. Redevelopment would include construction of approximately 15 acres of specific facility improvements by the County (i.e., new taxiways, apron area, drainage facilities, and utility facilities), and approximately 55 acres of aviation-use development by private developers (e.g., rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space).

The County, as the CEQA Lead Agency for the Proposed Project, is not subject to City of El Cajon regulations. In order to secure building permits, each private developer proposing future private development at Gillespie Field will need to comply with City of El Cajon plans and regulations. Pursuant to CEQA Section 15168, the City of El Cajon can use this Program Environmental Impact Report (PEIR) during the project permitting review of future private development. In addition, compliance with the regulations and project design features listed in this PEIR will be a requirement of the lease agreement future private developers must enter into with the County.

S.1.1 Location and Existing Conditions

The Proposed Project site is on the northwest corner of Bradley Avenue and Wing Avenue in the City of El Cajon, California. Access to the site is primarily provided by Interstate 8 (I-8), located approximately 1.5 miles to the south of Gillespie Field, which traverses east-west, State Route 52 (SR-52), an east-west highway located just north of the Proposed Project site, and State Route 67 (SR-67), a north-south highway located just east of the Proposed Project site that serves as a connector to the community of Ramona.

Currently, the site is undeveloped, vacant and graded. The Proposed Project site supports a population of San Diego ambrosia within and adjacent to an existing 1.1-acre ecological preserve that is currently fenced off from the remainder of the site. A paved lot is also located in the southwestern portion of the Proposed Project site.

S.1.2 Project's Component Parts

The Proposed Project site is in the southeastern corner of the 757-acre Gillespie Field property, and would be redeveloped with aviation uses. This redevelopment would alleviate the existing unmet demand for based aviation support facilities. Redevelopment would include construction of approximately 15 acres of specific facility improvements by the County, such as new

taxiways, apron area, drainage facilities, and utility facilities; and approximately 55 acres of aviation-use development by private developers, which may include rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space. This PEIR analyzes all components of the County public improvements, grading of the entire 70 acres, and development of construction pads in anticipation of the private development. This PEIR analyzes implementation of the private development at the Program level. Project specific analysis will be conducted once private development projects are identified and each developer will need to prepare their own environmental document for approval. The County is the CEQA Lead Agency for the public infrastructure improvements as described above; therefore the County will review and conduct subsequent environmental review on these projects. The City of El Cajon will be the CEQA Lead Agency for all subsequent proposed private aviation development by private developers that would require discretionary permits. Private developers will be responsible for completing the required environmental review necessary for the approval of their individual projects.

S.2 Summary of Significant Effects and Mitigation Measures That Reduce or Avoid the Significant Effects

Table S-1 provides a summary of each potential environmental effect found to be significant with the implementation of the Proposed Project, the mitigation measures that would reduce or avoid that effect, and the conclusion as to whether the effect is reduced to below a level of significance by applying mitigation measures.

S.3 Areas of Controversy

The CEQA Guidelines Section 15123(b)(2) states that an EIR shall identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The County issued a Notice of Preparation (NOP) for the Proposed Project on January 28, 2009; held one public meeting in the community; and received 7 written communications from area residents and businesses and 12 from agencies and organizations during the NOP comment period. Appendix A contains the comment letters received in response to the NOP. The NOP comments received mainly addressed noise, traffic, and biology.

It is important to note that the NOP was released for a joint Program Environmental Impact Report/Environmental Assessment (PEIR/EA). The NOP project description included redevelopment of the 70-acre site, as well as acquisition of parcels or avigation easements to comply with FAA regulations relating to Runway Protection Zones and Runway Safety Areas. The County and the FAA were the Lead Agencies in the preparation of this joint environmental document. In 2011, the County decided no longer to pursue a joint PEIR/EA, but instead pursue the PEIR and EA separately in accordance with CEQA and National Environmental Policy Act (NEPA). At this time, only the redevelopment of the 70-acre site is proposed and analyzed in this PEIR. An environmental document will be prepared for acquisition of parcels and/or avigation easements at the time that action is proposed.

S.4 Issues to Be Resolved by the Decision-Making Body

The County Board of Supervisors (Board) would be required to determine if the benefits of the proposed project outweigh the potential significant unavoidable impacts related to traffic and

transportation. In making this decision, the Board will have to balance the benefits of the Proposed Project against the unavoidable significant effects. The Board will also need to decide whether significant impacts to biological resources and hazardous materials can be reduced to less than significant with implementation of proposed mitigation measures, or whether or not to adopt a Project Alternative that would reduce the impact to less than significant.

S.5 Project Alternatives

Alternatives are required to be identified and evaluated to determine if they would lessen or avoid significant impacts identified in Chapter 2.0. The following two alternatives are compared in this PEIR to the proposed project and are summarized below in order of environmental superiority based on the detailed analysis in Chapter 4.0:

- No Project Alternative
- 66.9-Acre Reduced Footprint Project Alternative
- 36.5-Acre Further Reduced Footprint Alternative

S.5.1 No Project Alternative

Under the No Project Alternative, the existing conditions on the Proposed Project site would remain unchanged into the reasonably foreseeable future. The 70-acre site would not be developed with aviation uses and would remain vacant.

S.5.2 66.9-Acre Reduced Footprint Project Alternative

The Reduced Footprint Project Alternative (66.9-acre) would redevelop 66.9 acres of the 70-acre site. Of the 66.9 acres, the County would develop approximately 15 acres of the site for infrastructure improvements (i.e., new taxiways, apron area, drainage facilities, and utility facilities). The remaining 51.9 acres would be dedicated for future improvements to be completed by private developers, which may include: rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space. The existing 1.1 acres of non-native grassland, which includes 0.18 acre of San Diego ambrosia, would be avoided and surrounded by a 100-foot softscape buffer (2.0 acres).

S.5.3 36.5-Acre Further Reduced Footprint Alternative

The Further Reduced Footprint Alternative (36.5-acre) would redevelop 36.5 acres of the 70-acre site. Of the 36.5 acres, the County would develop approximately 15 acres of the site for infrastructure improvements (i.e., new taxiways, apron area, drainage facilities, and utility facilities). The remaining 21.5 acres would be dedicated for future improvements to be completed by private developers, which may include: rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space. Existing uses would be retained on the remaining 33.5 acres of the 70-acre site. The existing 1.1 acres of non-native grassland, which includes 0.18 acre of San Diego ambrosia, would be avoided.

Table S.1. Summary of Significant Effects and Mitigation Measures

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
2.1 Biology		
BI-1. The project will permanently impact 0.18 acre of San Diego ambrosia, a federal-listed endangered species. This would result in a *significant direct impact*.	**MI-BI-1a.** The County will offset direct impacts to 0.18 acre of San Diego ambrosia through transplantation of all individuals within the Proposed Project footprint to a 2.9-acre native grassland area north of the San Diego River, within Mission Trails Regional Park[1] (MTRP) as directed in the Biological Opinion (BO) issued by the United States Fish and Wildlife Service (USFWS) on September 1, 2009. A survey will be conducted before project impacts occur to ensure that all San Diego ambrosia have been located and mapped within the Proposed Project footprint. The outer perimeter of each ambrosia patch will be delineated on the ground with spray paint. If any ambrosia stems are discovered outside of this pre-transplantation mapped area of ambrosia, the County will reinitiate consultation with USFWS.	Less Than Significant
	M-BI-1b. A San Diego ambrosia transplantation plan will be approved by USFWS before any impacts to the species may occur. The plan will be implemented by a biologist or botanist with experience transplanting sensitive plant species (i.e., transplantation biologist). The transplantation plan will serve to guide the transplantation effort and the initial five-year monitoring program.	
	M-BI-1c. The ambrosia transplantation plan will include the following: • Individual clusters of ambrosia will be salvaged as blocks and transplanted to the transplantation site at MTRP using similar spacing and distribution as at the Proposed Project site. • Ten percent of ambrosia within the clusters will be removed from the Proposed Project site, following the USFWS-approved transplantation plan, and will be grown in large flats at a nursery/greenhouse and used for later out-planting at the MTRP transplantation site. • The exact location at the transplantation site	

[1] MTRP is protected by open space easements and is managed by the City of San Diego Department of Parks and Recreation.

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
	where the cut-blocks containing ambrosia propagules will be transplanted will be determined in the field by the transplantation biologist, in coordination with the USFWS, prior to transplantation. • The methods of transplantation, monitoring, and maintenance will be developed in coordination with the USFWS. The agreed-upon methods will be described in the transplantation plan, and will include specifics such as timing of transplantation, preparation of the donor and receptor sites prior to transplantation, placement of San Diego ambrosia, predator control and protective fencing, weeding, irrigation, length and type of monitoring, maintenance, and success criteria. • The 2.9-acre San Diego ambrosia transplantation site will be restored with native grasses.	
	M-BI-1d. The receptor site will be fenced off to delineate areas containing the transplanted San Diego ambrosia to minimize the potential effects of herbivory.	
	M-BI-1e. The County will be responsible for long-term management of the transplantation site at MTRP.	
	M-BI-1f. The transplanted ambrosia population will be monitored for a minimum of 5 years, in accordance with the requirements of the USFWS-approved translocation plan, to document success of the transplantation efforts. Success will be achieved when 80 percent of the transplanted San Diego ambrosia plugs are established and expand from the transplanted plugs as clones and/or newly established individuals.	
	M-BI-1g. All San Diego ambrosia propagules taken from the Proposed Project site for nursery/greenhouse growing will be out-planted at the restoration site to increase the probability of transplantation success. Out-planting of the nursery/greenhouse-grown San Diego ambrosia plants will occur during the five-year monitoring period as determined by the transplantation biologist in coordination with the USFWS. In the event of transplantation failure, the transplantation plan will include a contingency plan to offset impacts to San Diego ambrosia.	

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
	M-BI-1h. In addition to the USFWS-approved transplantation plan, a long-term management strategy will be approved by the USFWS before any impacts to San Diego ambrosia may occur. County staff will be responsible for ensuring that the transplanted ambrosia population is managed consistent with this long-term management strategy.	
	M-BI-1i. The 0.18-acre San Diego ambrosia population was previously fenced and preserved as mitigation associated with the 1985 Gillespie Field Airport Master Plan EIR. To offset these impacts, the County would conserve an additional 1.1 acres of existing San Diego ambrosia by acquiring land or securing a conservation easement over land with an existing San Diego ambrosia population that is currently not conserved.	
BI-2. The project will permanently impact 1.1 acres of non-native grassland, a sensitive vegetation community. This would result in a *significant direct impact*.	**M-BI-2.** Permanent impacts to non-native grassland would be mitigated at a 0.5:1 ratio through preservation of in-kind habitat or a vegetation community of higher biological value. This mitigation would be located within the receptor site of the transplanted or preserved San Diego ambrosia discussed in M-BI-1.	Less Than Significant
2.2 Hazards and Hazardous Materials		
HZ-1. Grading or excavation on the site may disturb contaminated soil, presenting potential health risks to construction workers. Additionally, the presence of contaminated soil on the site may present significant health risks to future occupants of the site. Excavation on the site may encounter soil and/or groundwater contaminated with TCE and 1,4-dioxane originating from the Ketema plume, presenting potential health risks to workers on the site or during operation of the proposed on-site aviation uses. This would be considered a *significant direct impact*.	**M-HZ-1a.** County Airports shall prepare a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds related to the construction of the taxiway, apron area, drainage facilities, and utility facilities on the site. This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with the Environmental Protection Agency (EPA) and the County Department of Environmental Health (DEH) requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site	Less Than Significant

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
	disposal, as needed during site development. The County prepared a Soil Management Plan (Rincon 2011c) for the Proposed Project to comply with this measure and it is included in Appendix E of this PEIR.	
	M-HZ-1b. As a condition of lease agreements for development between the County and private developers, County Airports shall require individual project developers to prepare and implement a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds and before any discharge to a public sewer system or storm drain. This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with EPA and County DEH requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site disposal, as needed during site development. The Soil Management Plan for the private development projects shall be prepared by each individual developer and can tier off the Soil Management Plan already prepared for the public development portion, which is included in Appendix E.	
	M-HZ-1c. As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, the County shall require a qualified environmental monitor to be present during the construction phases of individual development projects. The environmental monitor shall document the presence of contaminated soil and/or groundwater and shall assist in the excavation and off-site disposal of such soil and/or groundwater or the treatment and on-site reuse of such soil and/or groundwater. County Airports shall ensure that a qualified environmental monitor will be present during the construction phases of taxiway, apron area, drainage facilities, and utility facilities at the site to document the presence of contaminated soil	

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
	and/or groundwater. The environmental monitor shall assist in the excavation and off-site disposal of such soil or the treatment and on-site reuse of such soil and/or groundwater.	
	M-HZ-1d. As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, if development is planned where contaminated soils and/or groundwater are present, a human health risk assessment of these areas shall be conducted by the developer to evaluate potential health risks to future occupants of the site prior to occupation of any structures within the 70-acre site. Vapor transport and risk calculations shall be performed using the County DEH Vapor Risk 2000 spreadsheet model (October 5, 2004 revision). A Risk Based Corrective Action (RBCA) analysis shall be performed in accordance with American Society for Testing Materials ASTM PS-104 Standard Provisional Guide for Risk-Based Corrective Action using the RBCA spreadsheet system (RBCA Tool Kit for Chemical Releases). County Airports will also conduct a similar health risk assessment related to the construction of runway and taxiway improvements at the site.	
2.3 Traffic		
TR-1. Addition of the Proposed Project traffic would exceed the significance thresholds at the segment of Bradley Avenue between the SR-67 southbound and northbound ramps because it would add 218 Average Daily Trips (ADTs) under LOS E conditions, which is greater than the significance threshold of 200 ADT for a two-lane roadway operating under LOS E conditions. This results in a *significant direct impac*t.	Caltrans proposes to reconstruct the existing SR-67 interchange at Bradley Avenue. The construction schedule for this Caltrans project is not known at this time. The Bradley Avenue/SR-67 interchange project is estimated to cost approximately $34 million, and is included in the 2030 San Diego Regional Transportation Plan. Proposed improvements to the Bradley Avenue/SR-67 interchange would alleviate existing traffic congestion at this interchange, and could accommodate increased traffic volumes as a result of the Proposed Project. However, because the Bradley Avenue/SR-67 interchange project is not under the direct oversight or jurisdiction of the County, the County cannot anticipate that these improvements would be completed prior to implementation of the Proposed Project. Therefore, direct impacts would be *significant and unmitigable*.	Significant and Unmitigable
TR-2. Addition of the Proposed Project traffic would exceed the significance threshold at the intersection of Bradley Avenue and the SR-67 northbound ramps because it increases the delay by 5.5 seconds, which is greater than the significance threshold of 2 seconds for LOS E conditions (PM peak hour). This results in a *significant direct impact*.		

Impact Number and Description of Impact	Mitigation Measure	Significance After Mitigation
TR-C1. Addition of the Proposed Project traffic combined with cumulative traffic to the segment of Bradley Avenue between the SR-67 southbound and northbound ramps would worsen anticipated cumulative conditions at that location because the project would add 218 ADT to the roadway segment. This is greater than the significance threshold of 200 ADT to a roadway segment currently operating at LOS E, and is considered a *significant cumulative impact.*	**M-TR-C1/2.** Cumulative impacts would be mitigated below the level of significance through payment into the County Transportation Impact Fee (TIF) program. In accordance with the TIF program, a designated financial contribution would provide adequate mitigation for cumulative impacts associated with development in the unincorporated County. According to the TIF program for calendar year 2011, the Proposed Project has a required fee of $396 per trip. Based on this rate, the Proposed Project would result in the following TIF contribution: Proposed Project TIF Contribution: 1,407 daily trips[2] x $396 per trip = $557,172 Completion of the financial contribution described above would fully mitigate for cumulative impacts described in TR-C1 and TR-C2.	Less Than Significant
TR-C2. Addition of the Proposed Project traffic combined with cumulative traffic to the intersection of Bradley Avenue and the SR-67 northbound ramps would increase the delay by 9.6 seconds at that location, which is greater than the significance threshold of more than 2 seconds over existing conditions for LOS E (PM peak hour), and is therefore considered a *significant cumulative impact.*		

[2] The Proposed Project would generate 1,407 ADT, which includes the 218 ADT (per TR-C1) that would be added to the identified roadway segment and intersection as a result of the Proposed Project. The 1,407 ADT will be distributed on mobility element roadways in the County that were analyzed by the TIF program.

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CHAPTER 1 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Objectives

The County of San Diego (County) Department of Public Works (DPW) proposes to redevelop a vacant 70-acre site (Proposed Project site) located in the southeastern corner of Gillespie Field. The Proposed Project site will be redeveloped to support aviation uses at Gillespie Field. Gillespie Field is a 757-acre publicly owned facility located in the County of San Diego within the municipal limits of the City of El Cajon, with the exception of a small portion within the City of Santee (Figures 1-1 through 1-2).

Redevelopment of the Proposed Project site with aviation uses will be consistent with the Airport Layout Plan (ALP), the ALP Update Narrative Report, the Airport Capital Improvement Program (ACIP), Federal Aviation Administration (FAA) guidance, and will bring the County into compliance with federal grant assurances by adhering to the FAA requirements to develop the site to aviation use in accordance with the "highest and best use" for the property (FAA 2005).

In 2009, the County released for public review a Notice of Preparation (NOP) for a joint Program Environmental Impact Report/Environmental Assessment (PEIR/EA) for the Redevelopment of the 70-acre Parcel and Land Acquisition/Avigation Easement Project. The County and the Federal Aviation Administration (FAA) were the Lead Agencies in the preparation of this joint environmental document. In 2011, the County decided no longer to pursue a joint PEIR/EA, but instead pursue the PEIR and EA separately in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Moreover, only the redevelopment of the 70-acre site is being considered under CEQA and NEPA and not the acquisition of parcels and/or avigation easements. This PEIR does not analyze the potential environmental effects of the parcels considered for acquisition and avigation easement.

The objectives of the Proposed Project are:

- To meet the existing unmet and forecast market demand for based aircraft storage facilities to avoid constraining Airport operations.
- To comply with federal grant assurances by maintaining the highest and best use of airport properties.
- To promote general aviation and attract new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset to the County and the surrounding communities.

1.2 Project Description

The County proposes the redevelopment of a vacant 70-acre site located in the southeastern corner of the 757-acre Gillespie Field property with aviation uses. The Proposed Project would include construction of approximately 15 acres of facility improvements implemented by the County (i.e., new taxiways, apron area, drainage facilities, and utility facilities), and approximately 55 acres to be dedicated toward aviation-use development that would be designed and constructed by private developers (e.g., rectangular and T-hangar spaces,

conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space). Private developers would be required to conduct subsequent environmental review prior to the authorization for individual project development. The City of El Cajon will be the CEQA Lead Agency for all project components related to private development requiring discretionary permits.

The historic use of the Proposed Project site consisted of non-aviation uses including the Cajon Speedway. In 2005, the County sponsored an ALP Update Narrative Report for Gillespie Field to determine the ultimate potential of the Airport (and the 757-acre airport property), specific opportunities for improving facilities, and specific improvements/activities required to achieve compliance with FAA standards and federal grant assurances. From the findings and recommendations of the ALP Update Narrative Report, the County proposes critical capacity improvements through the redevelopment of the Proposed Project site for aviation use (P&D Aviation 2005). The County, as the Airport Sponsor, must agree to certain regulations regarding aviation land use on airport property if it accepts funds from FAA-administered airport financial assistance programs.

1.2.1 Project Components

1.2.1.1 Redevelopment of the Proposed Project Site

The County proposes the redevelopment of the Proposed Project site (a vacant 70-acre site) located in the southeastern corner of the 757-acre Gillespie Field property with aviation uses. This redevelopment would alleviate the existing unmet demand for based aviation support facilities. Redevelopment would include construction of approximately 15 acres of specific facility improvements by the County (i.e., new taxiways, apron area, drainage facilities, and utility facilities), and approximately 55 acres of aviation-use development by private developers (e.g., rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space). The County is the CEQA Lead Agency for the infrastructure improvements described above. The County is also responsible for issuing a formal Request for Proposals (RFP) to allow private developers an equal opportunity to bid for development space on the 55 acres dedicated for aviation use. All development proposed by private developers would be subject to an aviation lease agreement between the County and the developer. The City of El Cajon will be the CEQA Lead Agency for all subsequent proposed private aviation development by private developers that would require discretionary permits. Private developers will be responsible for complying with the City of El Cajon plans and regulations and completing the required environmental review necessary for the approval of their individual projects.

As discussed above, the addition of airport facilities, such as hangars and aircraft tie-downs, on the Proposed Project site would require a taxiway and an apron to provide access to existing aviation uses. Construction of the new taxiway and apron area would result in the permanent closure of Airport Drive from its western intersection with Joe Crosson Drive to its eastern intersection with Wing Avenue.

Redevelopment of the Proposed Project site with aviation uses will be consistent with the ALP, the ALP Update Narrative Report, the ACIP, FAA guidance, and will bring the County into compliance with federal grant assurances by adhering to the FAA requirements to develop the site to aviation use in accordance with the "highest and best use" for the property (FAA 2005).

1.2.1.2 Construction

With FAA final unconditional approval of the ALP, which would be issued with the Finding of No Significant Impact (FONSI) pursuant to the NEPA document, initial construction would include the redevelopment of the Proposed Project site with infrastructure facilities prior to the private development. Full implementation (or build-out) of the Proposed Project site is not anticipated to occur until 2019.

1.2.2 Technical, Economic, and Environmental Considerations

Technical Considerations. Technical aspects of the project include the following:

- Consistency with ALP Update Narrative Report, ALP, and ACIP.

Economic Considerations. Economic aspects of the project include cost of construction and project funding, as described below:

- Determination for potential eligibility for federal assistance under the federal Grant-in-Aid program authorized by the Airport and Airway Improvement Act of 1982, pursuant to 49 USC 47101; and
- Compliance with federal grant assurances.

Environmental Considerations. Environmental aspects of the project include biological resources, hazards and hazardous materials, and traffic:

- Minimize impacts to sensitive biological resources in the project area;
- Minimize impacts from hazards and hazardous materials; and
- Minimize traffic impacts to the extent feasible.

1.3 Project Location

The Proposed Project is located on Gillespie Field, a 757-acre publicly owned facility that serves the general aviation needs of the County of San Diego and surrounding cities.

Gillespie Field is located in San Diego County within the municipal limits of the City of El Cajon, with the exception of a small portion of the property located north of Prospect Avenue near the end of Runway 17, which is within the City of Santee. Gillespie Field is generally bounded by Kenney Street and Prospect Avenue to the north, Magnolia Avenue to the east, Bradley Avenue to the south, and Cuyamaca Street to the west. The Proposed Project site is located in the southeast corner of Gillespie Field.

Access to the site is primarily provided by Interstate 8 (I-8), located approximately 1.5 miles south of Gillespie Field, which traverses east-west, State Route 52 (SR-52), an east-west highway located just north of the Proposed Project site, and State Route 67 (SR-67), a north-south highway located just east of the Proposed Project site that serves as a connector to the community of Ramona.

1.4 Environmental Setting

In accordance with Section 15125 of the CEQA Guidelines, the general environmental setting for the Proposed Project area is provided in this section. Detailed descriptions pertaining to specific environmental conditions can be found at the beginning of each subsection in Chapters 2.0 and 3.0 of this PEIR.

1.4.1 Regional Setting

Gillespie Field is in the County of San Diego within the municipal limits of the City of El Cajon, with the exception of a small portion of property located in the City of Santee. The City of El Cajon is surrounded by the City of Santee to the north, the City of San Diego to the west, the City of La Mesa to the south, and unincorporated areas of the County to the south and east. El Cajon is approximately 15 miles east of the Pacific Ocean and 20 miles north of Tijuana, Mexico (Figures 1-1 through 1-4).

1.4.2 Local Setting

The Proposed Project site is within the municipal boundaries of the City of El Cajon. In the El Cajon General Plan, the site is designated as Industrial Park and zoned for manufacturing. The Proposed Project site also has a Special Development Area overlay in addition to the land use designations. The 70-acre Proposed Project site was previously the site of the Cajon Speedway, but all previous uses have been removed. Currently, the Proposed Project site is vacant, with the exception of a 1.1-acre ecological preserve and a paved lot.

The County-owned Gillespie Field Airport was annexed into the City of El Cajon in 1977, and the City maintains land use authority over the private development at Gillespie Field. Accordingly, any private development on the Proposed Project site is subject to discretionary review and approval by the City of El Cajon. The County maintains land use authority over the public airport development at Gillespie Field.

Properties immediately adjacent to Gillespie Field are primarily comprised of light industrial and commercial land uses, such as warehouses, manufacturing, and equipment storage. There are some single family and multi-family residences located just to the north near Prospect Avenue. Additionally, residential uses are located to the east, across SR-67, west and southwest of Gillespie Field. Other nearby land uses include a high school adjacent to the southwest boundary of the airport; elementary schools approximately 0.5 mile southwest, 0.5 mile east, and 1.5 miles to the south, near the intersection of North Johnson Avenue and Madison Avenue in the City of El Cajon; a middle school approximately 2 miles to the southeast on East Park Avenue near its intersection with Ballantyne Street; and a commercial shopping center (Westfield Parkway Plaza), located approximately 1 mile south at the intersection of North Johnson Avenue and Fletcher Parkway. Hillside Park is approximately 1 mile south and Shadow Hills Park is approximately 1 mile north of Gillespie Field. There is also a San Diego Trolley

station at the intersection of Cuyamaca Street and Weld Boulevard. No hospitals or other places of public assembly are located within the general project study vicinity, which extends approximately 1 mile from the airport boundary.

The major hydrological feature in the immediate project vicinity is Broadway Channel located immediately south of the Proposed Project footprint. Broadway Channel is a man-made flood-control facility and is a tributary to Forester Creek, which is located northwest of the site and eventually drains into the San Diego River. The San Diego River lies approximately 2 miles north of the site. Section 3.1.5 of this PEIR documents the hydrological conditions found on the site.

1.5 Intended Uses of the Program Environmental Impact Report

This Draft PEIR is an informational document that has been prepared to inform public agency decision makers and the public of the potential for significant environmental effects of the project, identify ways to minimize the significant effects, and describe reasonable alternatives that would reduce or avoid potentially significant impacts. This document is considered a PEIR as defined by Section 15168 of the CEQA Guidelines, and examines the redevelopment of a 70-acre site located in the southeastern corner of the Gillespie Field property with aviation uses.

This program-level document discusses the whole of the action related to the redevelopment of the Proposed Project site by the County and by private developers per FAA guidance. A program-level approach is used (versus project level), because the scope, scale, funding, and specific designs for individual projects (including both County and private development projects) within the 70-acre site have not been defined. This document identifies the need for subsequent measures to be implemented when individual components of the action are defined and funded. The County's intent is to use this PEIR to analyze the first-tier effects of the Proposed Project. Once the PEIR is completed, subsequent (or second-tier) activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared (Section 15168(c)). When the subsequent activities by private developers (i.e., development of rectangular and T-hangar spaces, aircraft maintenance space, aviation offices, business space, conventional hangar space, and aircraft tie downs) involve site-specific operations, the City of El Cajon will make a determination whether the environmental effects of the proposed activities were addressed in this PEIR.

1.5.1 Matrix of Project Approvals/Permits

Table 1.1 lists the discretionary approvals and permits for which this PEIR is intended to be used and the agencies that are expected to use the PEIR in their decision-making. The discretionary action triggering CEQA is the acceptance of funds from FAA to redevelop a 70-acre site at Gillespie Field, and to advertise and award a construction contract for installation of public infrastructure facilities. FAA funds will only be used for public infrastructure; FAA funds will not be used for the future private development.

1.5.2 Related Environmental Review and Consultation Requirements

Pursuant to Section 15082 of the CEQA Guidelines, the County prepared a NOP for this PEIR. The NOP was publicly circulated for 30 days from January 28 through February 27, 2009 (State

Clearinghouse No. 2005111092). Public comments received during the NOP scoping process are provided in Appendix A to this Draft PEIR.

1.6 Project Inconsistencies with Applicable Regional and General Plans

The project was reviewed for consistency with the following applicable regional and general plans:

- Airport Land Use Compatibility Plan for Gillespie Field
- County of San Diego General Plan
- County of San Diego Noise Ordinance
- County of San Diego Hydromodification Management
- Gillespie Field ALP
- San Diego County Resource Protection Ordinance
- San Diego Regional Air Quality Strategy

This review identified no inconsistencies with these plans.

The County, as the CEQA Lead Agency for the Proposed Project, is not subject to City of El Cajon regulations. In order to secure building permits, each private developer proposing future private development at Gillespie Field will need to comply with City of El Cajon plans and regulations. Pursuant to CEQA Section 15168, the City of El Cajon can use this PEIR during the project permitting review of future private development. In addition, compliance with the regulations and project design features listed in this PEIR will be a requirement of the lease agreement future private developers must enter into with the County.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

Section 15355 of the State CEQA Guidelines defines cumulative effects as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Section 15130 of the State CEQA Guidelines allows for the use of two alternative methods to determine the scope of projects for cumulative impact analysis:

- List Method – 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.
- General Plan Projection Method – A summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

The cumulative project boundary for this project is based on a 1-mile radius surrounding the Proposed Project site. In some instances, this boundary was extended to accommodate for cumulative projects with impacts to biological resources, specifically San Diego ambrosia (*Ambrosia pumila*). A total of 49 cumulative projects have been identified for further analysis in this PEIR, including 20 projects within the County, 5 projects within the City of El Cajon, and 24 projects within the City of Santee. These cumulative projects are the basis for impact analysis. A summary of the 49 cumulative projects is included in Table 1.2 and locations are shown in Figure 1-4. Discussion of potential impacts involving cumulative projects is located in Chapters 2.0 and 3.0 of this PEIR.

1.8 Growth-Inducing Impacts

Pursuant to CEQA, environmental documents are required to evaluate whether a proposed project will induce direct or indirect population growth, economic development, or housing construction in the surrounding areas (Public Resources Code § 21100; CEQA Guidelines §15126(d)). This includes the removal of obstacles to growth by accommodating additional population or construction, such as the expansion of public service facilities. Because population and/or economic growth typically produce a varied range of effects that occur simultaneously, attempts to label growth as categorically beneficial or adverse are considered subjective. CEQA Guidelines state that "growth in any area should not be assumed as necessarily beneficial, detrimental, or of little significance to the environment." If it is determined that a particular project will induce growth, then the secondary effects of that growth must also be addressed.

The Proposed Project would not substantially induce growth or result in substantial growth-inducement impacts. Discussion supporting this determination follows.

The City of El Cajon is largely built out and, therefore, future development is largely constrained within this jurisdiction. The City is now focusing on business growth and redevelopment. The lack of vacant land makes residential growth limited. Housing units are projected to grow only 7 percent between 2000 and 2030, and population is projected to grow only 11 percent. Employment is expected to grow a moderate 15 percent. This level of growth is much lower than what is projected for the entire County.

The causes of growth typically involve a complex and varied relationship among several factors including economic setting, employment opportunities, natural population increase, public policies, and local environment. All of these influence the rate and extent of growth, but economic and employment opportunities (and to a lesser extent local birthrates) are considered the most important factors in the San Diego region. Regardless of the environmental amenities or favorable local attitudes toward growth in a specific area, significant sustained population growth will normally not occur without adequate employment opportunities.

The redevelopment of the Proposed Project site will allow the airport to accommodate the increasing need to provide aviation-related uses in the area. This would not result in a substantial need for increased or expanded public services to the area, which may remove obstacles to growth. The site is an existing 757-acre facility surrounded by urban development, and the Proposed Project would have no impact on growth in the area. The existing 757-acre facility currently supports aviation infrastructure, as well as aviation and non-aviation

businesses. Furthermore, the Proposed Project is a revenue generating project for the County through the lease agreements with private developers; however, it does not involve residential development and is not anticipated to substantially increase employment opportunities in the area. The addition of 55 acres of commercial development to an existing 757-acre facility already providing similar services is a relatively small increase. Therefore, the Proposed Project will not substantially induce growth and will not result in substantial growth-inducement impacts within the local community or the region.

Table 1.1. Matrix of Approvals/Permits

Approving Agency	Discretionary Approval/Permit
County of San Diego	Certification of the PEIR and adoption of a MMRP Board of Supervisors approval for lease agreements for any proposed private development at Gillespie Field
City of El Cajon	Land use permitting and CEQA approval for any proposed private development at Gillespie Field
U.S. Fish and Wildlife Service	Issuance of a Biological Opinion per Formal Consultation under Section 7 of the Endangered Species Act of 1973
Caltrans Division of Aeronautics	State Airport/Heliport Permit
State Water Resources Control Board	General Industrial Storm Water Permit per the National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit
San Diego Regional Airport Authority	Airport Land Use Commission findings in a Statement of Consistency with the adopted Airport Land Use Compatibility Plan (ALUCP) for Gillespie Field

Table 1.2. Cumulative Projects

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
County of San Diego					
1	Tills TPM TPM 20862	624 Pepper Drive	A 3-lot single-family residential project	Project approved 5-5-08	No Significant Impacts – CEQA Exemption Applied by County
2	Tuttle Lane lot split TPM 20921	1269 Tuttle Lane	A 3-lot single-family residential subdivision project	Project approved 4-19-09	No Significant Impacts – CEQA Exemption Applied by County – impacts to five acres of land in proximity to Multiple Species Conservation Program (MSCP) considered less than significant.
3	Almond Road TPM TPM 20782	8841 Almond Road	A 4-lot single-family residential subdivision project	MND prepared 11-30-06 Project approved 6-14-07	Significant Impacts: Traffic Less than Significant Impacts: Hazards and Hazardous Materials, Visual, Air Quality, Soil Erosion, Airport Proximity, Hydrology/Water Quality
4	Topper Lane TPM TPM 20895	1163 Topper Lane	A 4-lot single-family residential subdivision project	MND prepared 12-2006 Project approved 6-14-07	Significant Impacts: Biological Resources, Traffic Less than Significant Impacts: Aesthetics, Air Quality, Hydrology/Water Quality, Noise, Recreation
5	Heil TPM TPM 20925	2040 Marlinda Way	A 2-lot single-family residential subdivision project	MND prepared 2-26-08 Project approved 5-14-08	Significant Impacts: Hazards and Hazardous Materials, Traffic Less than Significant Impacts: Aesthetics, Agriculture, Geology/Soils, Hydrology/Water Quality, Noise, Land Use, Population/Housing, Recreation, Utilities.
6	Silver Sage Condominiums TM 5396	Southeast corner of Woodside Ave. and Marilla Dr. intersection	80 multi-family residential unit project on 4.03 acres	Mitigated Negative Declaration Adopted 5-6-06	Significant Impacts: Noise, Traffic Less than Significant Impacts: Aesthetics, Air Quality, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use and Planning, Population and Housing, Recreation

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
7	Las Colinas Detention Facility	Northwest of Magnolia Avenue and Mission Gorge Road	Redeveloped 1,216-bed women's detention facility	EIR public review ended 1-09; Final EIR adopted 6-24-09.	Significant Impacts: Cultural Resources (significant and unavoidable impact to three historic buildings), Traffic (cumulatively significant and unavoidable impacts to the Cuyamaca St. and Mission Gorge Rd. intersection, the Prospect Ave. and Magnolia Ave. intersection, and the Magnolia Ave. segment between Mission Gorge Rd. and Riverview Pkwy.), Archaeological Resources, Biological Resources (nesting birds impact – M.M. = pre-construction surveys and maintaining a 500-foot buffer); Removal of 4.8 acres of non-native grassland – M.M. = preserve 2.4 acres of non-native grassland; Loss 0.4 acre of wetlands – M.M. = creation or purchase of 0.4 acres in the watershed of the San Diego River; and Removal on one coast live oak tree – M.M. = plant two replacement coast live oak trees, Geology and Soils, Hazards and Hazardous Materials, Hydrology/Water Quality
8	Singing Hills Estates TM 5380, SP 04-005	South of La Cresta Rd.	235-lot residential development on 952 acres	Project has been idle since 6-9-09.	Impacts to cultural resources were documented throughout project area – both prehistoric and historic. 13 potentially RPO significant resources exist. Environmental review was not completed.
9	Pepper Villa Drive TM 5517	988 Pepper Dr.	11-unit single family residential lots project	Environmental review underway – Public Review for MND 3-24-11 to 4-22-11. Applicant has until 8-18-11, to respond to DPLU staff.	MND identified the following significant impacts: Cultural Resources (marginal potential for paleontological resources), Noise, and Traffic (cumulative impacts).

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
10	Gateway Commercial TM 5529	1641 Magnolia Ave.	Subdivide existing 3-lot, 3.6-acre commercial property into 6 lots for commercial use	Negative Declaration prepared 4-09	No Significant Impacts (project does not entail physical changes)
11	Germann TM 5520	9212 Westhill Road	15-lot residential subdivision on 5.2 acres	Idle – applicant given until 1-10-11 to deposit funds.	To be determined
12	Price TPM 20762	2525 La Cresta Rd.	24.4 acre 3-lot residential subdivision	Application withdrawn 7-28-10	N/A
13	Burzstyn TPM 20840	Near La Cresta Rd.	23.3 acre 4-lot residential subdivision	Mitigated Negative Declaration prepared 8-07 Project Approved 4-19-09	Significant Impacts: Biological Resources (habitat impacts, wetland impacts, and Forester Creek, but no impacts to non-native grassland), Cultural Resources, and Traffic Less than Significant Impacts: Aesthetics, Air Quality, Geology and Soils, Hazards and Hazardous Materials, Hydrological Resources, Land Use and Planning, Mineral Resources, Noise, Recreation, and Utilities and Service Systems
14	East Bradley TPM 20968	1145 Pepper Drive	3.4-acre 3-lot residential subdivision	Notice of Exemption filed 8-14-09 Project Approved 8-27-09	No Impacts. Categorically Exempt.
15	TPM 20973 Morici Minor Subdivision	1135 Washington Heights Pl.	2-lot residential subdivision that would include one existing building and one proposed building	Approved 7-8-08	Mitigated Negative Declaration, 4-10-2008 Significant Impacts: Transportation and Traffic (M.M. = Traffic Impact Fee) Less than Significant Impacts: Aesthetics, Air Quality, Geology and Soils, Hazards and Hazardous Materials, Hydrology, Land Use and Planning, Mineral Resources, Population and Housing, Recreation, Utilities and Service Systems No Biological Resources impact – site is completely disturbed

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
16	Bradley Avenue/SR-67 Interchange	Bradley Avenue at SR-67	Reconstruction of the existing SR-67 interchange at Bradley Avenue.	Mitigated Negative Declaration (CEQA) and Finding of No Significant Impact (NEPA) approved on 7-24-08	Less than Significant Impacts: Aesthetics, Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Population and Housing, Transportation/Traffic, and Utilities and Service Systems
17	TPM 20931 Pepper Drive TPM	560 Pepper Drive	3-lot single-family residential subdivision project	Approved 9-19-06	No Impacts. Categorically Exempt.
18	TPM 21125 Bush Minor Subdivision	1226 Pepper Drive	4-lot and remainder subdivision	Environmental review underway	To be determined
19	TPM 20988 Poinciana Drive TPM	8428 Poinciana Drive	4-lot single-family residential subdivision project	Approved 1-8-07	No Impacts. Categorically Exempt.
20	TPM 21171 Topper Lane Estates	Topper Lane just south of Pepper Drive	4-lot subdivision project	Environmental review underway	To be determined
City of El Cajon					
21	Pacific Scene Industrial Park (Also referred to as Forester Creek Industrial Park) Unknown Case Number	Northwestern Corner of Cuyamaca Avenue and Weld Boulevard APN 38719006	Industrial Park – 470,000 sf of industrial uses	Pending approval; Final prepared 5/09	Significant Impacts: Air Quality (significant and unavoidable construction and operation), Biological Resources (15.6 acres of non-native grassland; M.M. = off-site acquisition of 7.8 acres) (nesting birds impact – M.M. = pre-construction surveys and maintaining a 500-foot buffer); Ambrosia impact – M.M. = compliance with Section 7 and 10a of Endangered Species Act; and preparation of habitat conservation plan) (wetlands impact at Forester Creek due to fill of jurisdictional waters – M.M. = wetland mitigation and monitoring plan) Hazards and Hazardous Materials (construction period air traffic hazard – M.M. = coordination with airport manager and submitting Notice to Airmen)

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
					Noise (operation of HVAC equipment M.M. = noise walls around the HVAC equipment) Transportation and Traffic (direct impact and cumulative impacts to features unrelated to Gillespie project).
22	Rocky Hill Point	1075 East Washington Ave.	27-unit residential development on 2.34 acres	Negative Declaration Adopted 7-14-09	Less than Significant Impacts: Archaeological Resources, Noise – construction, Recreation, Transportation and Traffic
23	Electrical Peaker Plant	222 N. Johnson Ave.	Additional power generator at an existing SDG&E substation on 2.2 acres	Negative Declaration prepared 5-09	Less than Significant Impacts: Land Use and Growth Inducement, Geologic Conditions, Hydrology and Water Quality, Air Quality and Odor, Transportation, Traffic, and Parking, Mineral Resources, Health and Safety, Noise, Public Services, Facilities, and Public Utilities, and Visual Effects and Neighborhood Character No Biological Resources Impact - paved site Not within Gillespie Field Land Use Plan
24	Public Safety Center	Southeast corner of E. Park Ave. and N. Magnolia Ave.	Addition to existing civic center; 5-story building and parking area on 5.7 acres for use by local police department	Final EIR approved, Groundbreaking on 6-23-09 – currently under construction. Due to be complete in 2011	Significant Impacts: Transportation and Traffic (cumulative impact on Magnolia Ave./Main St. intersection – M.M. = fair-share contribution) Hazards & Hydrology and Water Quality (dewatering in area with contaminated groundwater M.M. = regulate pumping rate and duration) Noise (construction, M.M. = temporary noise wall and Best Management Practices [BMPs]) (operational traffic noise, M.M. = install noise walls) Air Quality (significant and unavoidable construction impact), Cultural Resources, Paleontological Resources, Public Services and Utilities (significant and unavoidable impact on the local water, sewer, and storm water infrastructure in downtown El Cajon).

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
25	Airport Hangar Project	East side of North Marshall Avenue north of Bradley Avenue	1.38 acre hangar building project	Project information not available	Project information not available
City of Santee					
26	ING Subdivision TPM06-04	11569 Woodside Ave.	4 single-family residential units on 1.4 acres	MND; Project approved 10-07	Significant Impacts: Biological Resources (0.9 acres non-native grassland, M.M. = off-site acquisition) Less than Significant: Air Quality, Geology and Soils, Hazards and Hazardous Materials, Recreation, Utilities and Service Systems
27	Wehab Tentative Parcel Map TPM08-04	9130 Shadow Hill Rd.	3-lot residential subdivision on 4.2 acres	MND Adopted 1-26-11	Significant Impacts: Biological Resources (2.8 acres of non-native grassland impacts, M.M. purchasing off-site mitigation credits of non-native grassland habitat within an approved mitigation bank at a 1:1 ratio).
28	Riverwalk Subdivision	Near Hoffman Lane, east of Cuyamaca Street and south of Mast Boulevard	218 multi-family units on 20.7 acres	MND; project approved 7-04, Buildout of project to be complete fall 2011	Significant Impacts: Biological Resources (nesting birds; no non-native grassland) Water Quality (Woodglen Vista Creek) Air Quality (construction-related PM10 emissions – M.M. = construction BMPs) Traffic (impacts on features unrelated to Gillespie project) Less than Significant: Noise, Hydrological Resources, Public Services, Recreation
29	Villages at Fanita TM05-04	North of Fanita Parkway Terminus	1,380 single-family residential units and 15 live/work detached dwelling units	EIR approved 12-07, Construction has not commenced	Significant Impacts: Aesthetics (new source of light, M.M. = follow light guidelines in general plan and zoning code) Air Quality (significant and unavoidable construction impacts – M.M. = BMPs)

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
					Biological Resources (102.4 acres non-native grassland impacts – M.M. = habitat restoration plan) (nesting birds – M.M. = preconstruction surveys and appropriate buffer zones) Climate Change (construction and vehicular emissions, M.M. = participation in green builder program) Cultural Resources Geology and Soils Hydrology (construction water quality impact) Noise (traffic noise at residences – M.M. = noise barriers) Public Services (schools and solid waste) Traffic (significant and unavoidable impact on features unrelated to the Gillespie project)
30	Sky Ranch Development TM04-08	Terminus of Graves Avenue, east of SR-67	224-single-family and 149-multi-family units on 231.6 acres	Final EIR 8-05; as of 2011 2/3 construction complete	Significant Impacts: Aesthetics (scenic vista and degradation to existing visual quality) Air Quality (cumulative vehicular emissions) Traffic (impacts on features unrelated to Gillespie project) Biological resources (0.2 acres of non-native grassland – M.M. = off-site preservation) Cultural Resources Geology and Soils, Hazards and Hazardous Materials Noise (construction) Utilities and Service Systems (impacts on Padre Dam Municipal Water District service)
31	Rancho Fanita Villa TM05-05	Marrokal Lane	24-unit condominium development on 2 acres	Negative Declaration approved 3-07	Less than Significant: Aesthetics, Air Quality, Geology and Soils, Noise No bio impacts as the site is disturbed

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
32	Village Run Estates TM08-/ DR08-06/AEIS08-13 (Formerly PA05-22)	9938 Buena Vista Ave.	25 multi-family residential units on 2 acres	Incomplete	To be determined; Previously disturbed and developed site
33	D'Lazio DR05-24	8441 Fanita Dr.	20-unit condominium complex on 2 acres	Project Approved 8-06, Rough grading completed - project currently on hold	No impacts.
34	Walgreens 1 DR05-26	9305 Mission Gorge Road	14,280 square foot retail building	Negative Declaration prepared 4-06; Project approved 9-07, Construction completed 2008	Less than Significant: Hazards and Hazardous Materials (contaminated site) (site is adjacent to Forester Creek; previously disturbed and developed site)
35	Marrokal Commercial Building DR06-01	South of Mission Gorge Rd.	32,677-square-foot commercial building on a 2.1-acre lot	Project Approved 12-06, not yet constructed	No Significant Impacts – CEQA Exemption
36	American Sheet Metal DR06-04	8710 Railroad Avenue	11,619 square foot industrial building	Project Approved 4-08	No Significant Impacts – CEQA Exemption
37	Walgreens #2 DR07-01	10512 Mission Gorge Road	A 12,729-square-foot retail project	Negative Declaration prepared; Project completed 2009	Less than Significant: Geology and Soils, Noise, Utilities and Service Systems (Previously developed and disturbed site)

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
38	Miller Subdivision DR07-04	8504 Atlas View Dr.	3-unit residential subdivision	Negative Declaration approved 9-07	Less than Significant: Air Quality, Geology and Soils, Hydrology, Noise, Public Services
39	Donahue Lot Split DR07-06	9429 Pryor Drive	2-lot residential subdivision on 0.54 acres	Negative Declaration approved 7-07, not yet constructed	Less than significant impacts: hazards (proximity to airport); hydrology; noise (airport); recreation; utilities Site is completely disturbed; not within airport noise contours; required to record avigation easement
40	Lunar Lane Industrial Building DR08-02	South side of Lunar Lane APN: 384-091-38	7,931-square-foot industrial building on 0.4 acres	Project Approved 9-08	No Significant Impacts – CEQA Exemption
41	Cozza Industrial Building Expansion DR08-04	9941 Prospect Avenue	Two industrial buildings totaling 38,961 square feet	Project Approved 8-08	No Significant Impacts – CEQA Exemption
42	Chelsea Investment Affordable Housing DR08-14	8630 Fanita Dr.	48-unit residential development on 2.5 acres	Adopted; Mitigated Negative Declaration completed 2-09; Construction complete in 2010	Less than Significant: Air Quality, Geology and Soils, Water Quality, Noise, Public Services, Traffic (Previously developed and disturbed site)
43	San Diego River Restoration, Edgemoor Property P06-02	Along the San Diego River bounded by Magnolia Avenue and Cuyamaca Street	48.7-acre riparian habitat enhancement on the banks of the San Diego River	Mitigated Negative Declaration prepared 12-06 Project Approved 9-07	Significant Impacts: Air Quality – construction equipment and grading, Cultural Resources – archaeological resources, Biological Resources – 23.5 acres of non-native grassland – No M.M. because project itself is restoring wetlands habitat, nesting birds – M.M. = pre-construction surveys and 500-foot construction buffer, Less than Significant: Land Use, Traffic, Noise, Geology and Soils, Hazards and Hazardous Materials, Aesthetics, Public Services, Recreation

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
44	Tower Glass Industrial P08-06	9702 Prospect Avenue	35,000 square foot industrial building	Approved 8-7-09; Not yet constructed	No impacts: Categorically Exempt.
45	Cameron Brother Construction Co. P68-11	8712 Magnolia Avenue	On-site reconfiguration of an existing mobile home development	Project Approved 4-08	Exempt - April 2008
46	Hofstee Storage Building MP06-01	Buena Vista Avenue	1000-square-foot storage building	Approved 2-07	Exempt from CEQA
47	Lantern Crest Senior Care Facility GPA07-03	8549 Graves Avenue	360-unit senior congregate care facility on 26.7 acres	Negative Declaration prepared 8-08	Significant Impacts: Biological Resources (7.7 acres non-native grassland – M.M. = on-site preservation or off-site acquisition totaling 3.8 acres) (nesting birds – M.M. = avoid breeding season or preconstruction surveys and establish buffers in case of positive survey) Traffic (impacts on features unrelated to Gillespie project – M.M. = fair share contribution) Less than Significant: Air Quality, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology, Noise, Population and Housing, Public Services
48	Sampson/Sky Investments Industrial Building DR07-09/ AEIS07-13	At the north east corner of Cottonwood Avenue and Buena Vista Avenue	14,954 square foot industrial building on 0.9 acres	Approved 10-07	Exempt from CEQA Under Construction

Map Indicator	Project Name and Case Number	Location	Project Description	Status	Project-Level Related Impacts
49	Santee Car Wash Plaza (Commercial Mixed Use) P10-01	Mission Gorge Road between Riverview Parkway and Magnolia Avenue	Commercial mixed use project with 5,000 square feet of retail, 3,200 square feet of restaurant, 3,800 square feet of office, and a car wash	Negative Declaration approved 11-10. Project is currently in grading and building permit plan check review, construction has not commenced	No significant impacts

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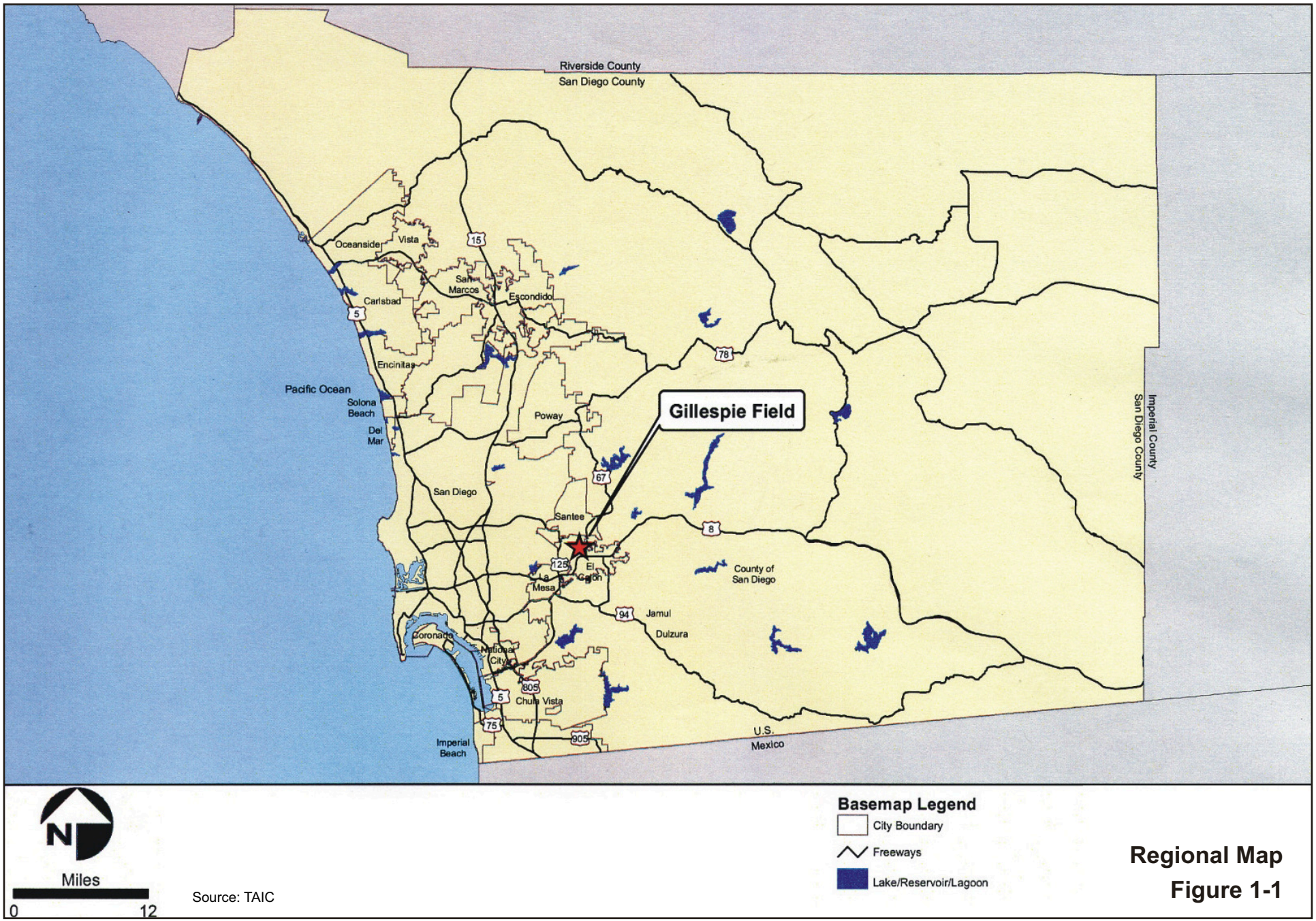

Source: TAIC

Regional Map
Figure 1-1

Z:\Projects\j530202\Gillespie Field EIR EA Figs\Fig1-1.cdr

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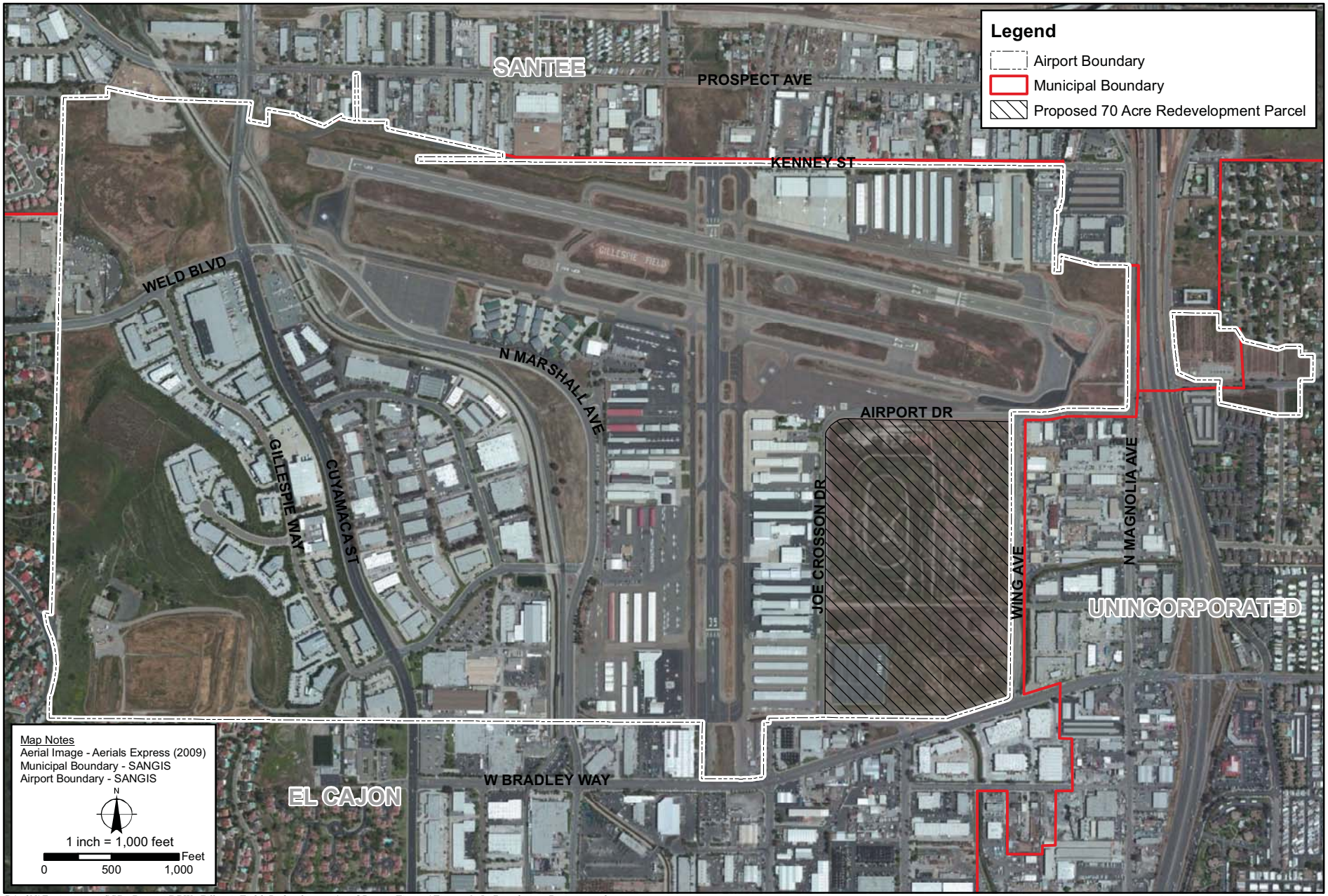

R:\sd11\Environmental\SD_County_DPW_Gillespi_Field_Redevelopment\mxd\Report Figures\Figure_1_5_Cumulative_Projects.mxd

Source: Hydrologic Subarea (NRCS WBD 2008)

amec

Vicinity Map
Gillespie Field 70-Acre Redevelopment Project

FIGURE
1-2

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amec

Proposed Project Footprint
Gillespie Field 70-Acre Redevelopment Project

FIGURE
1-3

GRAPHICS/Planning/GillespieField/Proposed Project.fh8

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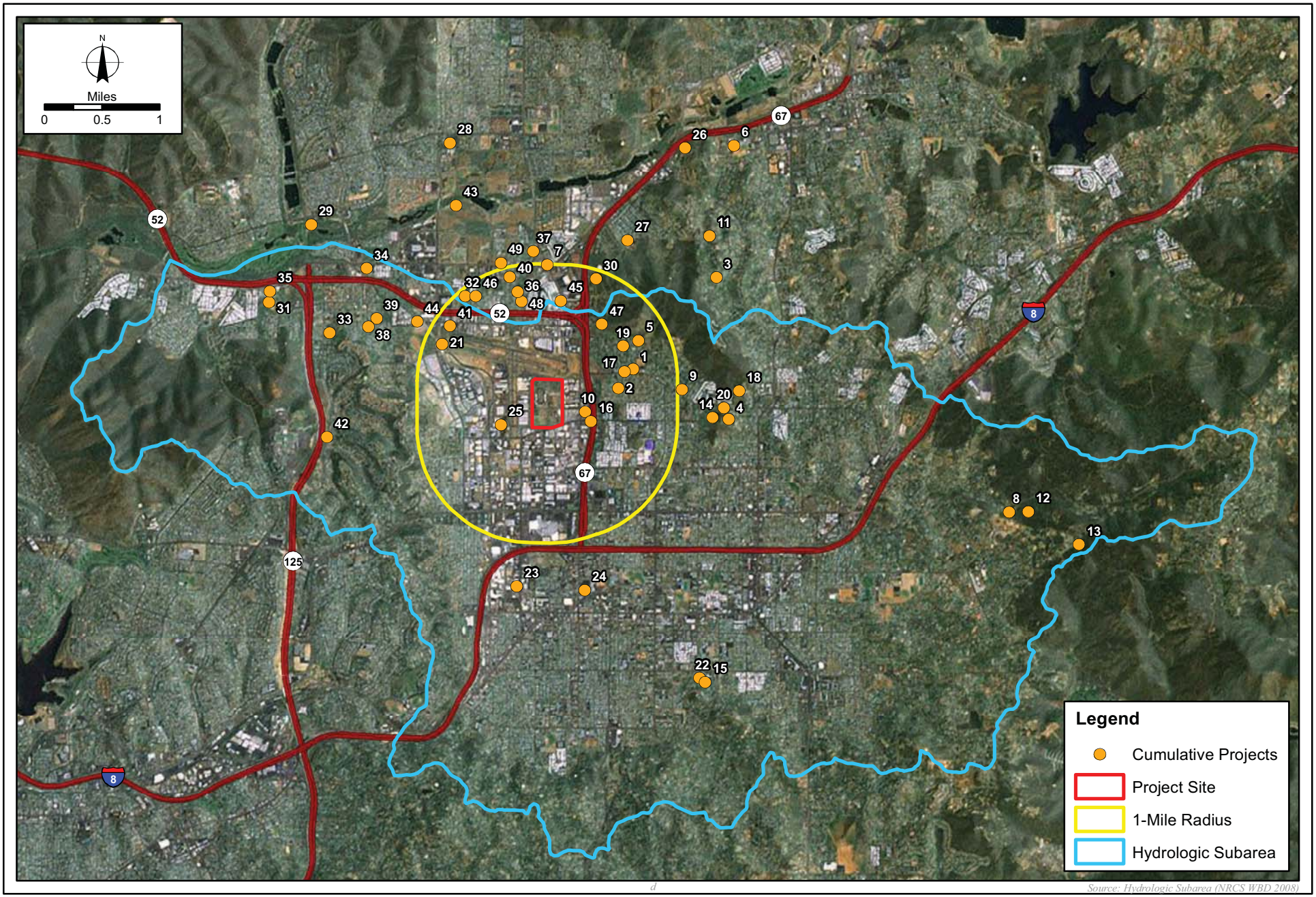

Cumulative Projects
Gillespie Field Environmental Impact Report
County of San Diego

FIGURE
1-4

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CHAPTER 2 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

2.1 Biological Resources

This section presents a discussion of biological resources that would be affected by the Proposed Project. The analysis is based on a Biological Resources Impact Analysis Technical Report (Biological Report) and update report prepared by Technology Associates International Corporation (TAIC) and AMEC Earth & Environmental, Inc. (AMEC), which are included as Appendix C of this PEIR (TAIC 2009; AMEC 2011). Biological resources data presented in the project area were obtained through literature review and biological surveys conducted between March 2006 and January 2009.

A general biological survey was conducted to identify and map the vegetation communities, sensitive plant and wildlife species, and potential jurisdictional wetlands/waters present on the Proposed Project site. Rare plant surveys, including focused surveys for San Diego ambrosia, were conducted in May 2006.

2.1.1 Existing Conditions

The study area encompasses 71.2 acres, including the 70-acre Proposed Project site and 1.2 acres located offsite south of the Proposed Project site. Vegetation communities found within the study area include disturbed habitat, urban/developed areas, non-native grassland, non-vegetated channel, and freshwater marsh as classified by the Thomas Oberbauer modification of Holland Community Types (TAIC 2009, AMEC 2011). The Proposed Project site is maintained and mowed approximately once per year. The site also contains an approximately 6.1-acre paved lot. The Proposed Project does not include development or changes to Broadway Channel as it is located outside of the Proposed Project footprint. Due to the high level of disturbance on the Proposed Project site and surrounding development, the site supports a low diversity of wildlife species.

The Proposed Project site drains toward the northwest. The major hydrological feature in the immediate project vicinity is Broadway Channel, which is a man-made flood control facility and is a tributary to Forester Creek, which is located northwest of the Proposed Project site and eventually drains to the San Diego River. The San Diego River is located approximately 2 miles north of the site.

The biological resources literature review involved research of the project site in the following databases and resources: the California Natural Diversity Database (CNDDB), the Multiple Species Conservation Program (MSCP) species database, the United States Fish and Wildlife Service (USFWS) database, the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants, and the San Diego Natural History Museum's Bird Atlas and Mammal Atlas. Sensitive species occurring or potentially occurring on the project site or within a one-mile radius of the project site were noted and analyzed for their potential to be affected by the project. The literature review also entailed research of several reports and environmental review documents prepared for projects located in the vicinity of the project site.

2.1.1.1 Regulatory Environment

This section outlines some of the applicable regulations related to biological resources.

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) (16 U.S.C. § 1531 et seq.) protects the fish, wildlife, and plant species, along with their habitats, that have been identified by USFWS, National Oceanic and Atmospheric Administration, or National Marine Fisheries Service as threatened or endangered. *Endangered* refers to species, subspecies, or distinct population segments that are in danger of extinction throughout all or a significant portion of their range; *threatened* refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C § 703 et seq.) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the former Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture's Animal Damage Control Officer makes recommendations on related animal protection issues.

Clean Water Act

The federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants into waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The following discussion provides background information relevant to biological resources; additional discussion of the CWA is provided in Section 3.1.5, *Hydrology and Water Quality*.

Waters of the United States are areas subject to federal jurisdiction pursuant to Section 404 of the CWA. Waters of the United States are typically categorized into two types; *wetlands* and *other waters of the United States*. They are defined as follows:

Wetlands are "areas that are inundated or saturated by surface or groundwater 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" (33 CFR § 328.3[b], 40 CFR § 230.3). To be considered subject to federal jurisdiction, a wetland must normally support hydrophytic vegetation, hydric soils, and wetland hydrology.

Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for the three wetland parameters described above (33 CFR 328.4).

State Regulations

Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. Migratory non-game birds are protected under Section 3800. Mammals are protected under Section 4700. The California Fish and Game Code defines take as, "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

2.1.1.2 Habitat Types/Vegetation Communities

Vegetation communities, or habitats, consist of coexisting assemblages of plants present in a particular location. Five vegetation communities were identified within the study area, which consists of the Proposed Project Impact Area (PIA) plus 1.2 acres located offsite (Figure 2.1-1 and Table 2.1-1).

Disturbed Habitat (11300)

Disturbed habitat is any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities. Such habitat is typically found in vacant lots, roadsides, construction staging areas, or abandoned fields, and is dominated by non-native annual species and perennial broadleaf species. Typical plant species include Russian thistle (*Salsola tragus*), sweet fennel (*Foeniculum vulgare*), horseweed (*Conyza* spp.), mustards (*Brassica* spp.), lamb's quarters (*Chenopodium album*), fountain grass (*Pennisetum setaceum*), and castor bean (*Ricinus communis*), among others. Non-native trees, such as eucalyptus (*Eucalyptus* spp.), pepper trees (*Schinus molle* and *S. terebinthifolius*), Russian olive (*Olea europea*), and other ornamentals can also occur in this association. Disturbed habitat comprises 62.9 acres of the Proposed Project site.

Disturbed habitat of the Proposed Project site have been developed or have supported various developments in the past, including a racetrack, roadways, parking lots, and storage areas. Disturbed habitat within the Proposed Project site include the following dominant non-native species: filaree, mustards, wild radish (*Raphanus sativus*), and non-native grasses. Native species, including blue-eyed grass (*Sisyrinchium bellum*) and wild onion (*Allium* sp.), were also observed within the Proposed Project site.

Freshwater Marsh (52400)
Freshwater marsh occurs in permanently flooded freshwater wetlands and is dominated by perennial, emergent monocots such as bulrushes (*Scirpus* spp.) and cattails (*Typha* spp.). The study area encompasses 0.05 acre of freshwater marsh; however, impacts to this vegetation community would be avoided as it located along Broadway Channel outside of the Proposed Project footprint.

Non-native Grassland (42200)
Non-native grassland is characterized by dense to sparse cover of annual grasses, often featuring native and non-native annual forbs. This is generally a disturbance-related community most often found in old fields or clearings in native scrub habitat. Typical grasses occurring within this habitat are wild oats (*Avena fatua* and *A. barbata*), foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), and Italian ryegrass (*Lolium multiflorum*), as well as the forbs filaree, mustards, California poppies (*Eschscholzia californica*), tarweed (*Deinandra fasciculatum*), California goldfields (*Lasthenia californica*), and lupines (*Lupinus* spp.). Non-native grassland comprises 1.1 acres.

The 1.1-acre area of non-native grassland contains a preserved population of the federal-endangered plant species, San Diego ambrosia (A*mbrosia pumila*). Other plant species located within the 1.1-acre includes wild oats, bromes, and barley (*Hordeum* sp.).

Unvegetated Channel (64200)
Unvegetated channel is observed on drainages that contain little or no vegetation outside the area of tidal influence. The lack of vegetation can be attributed to either natural processes, such as flooding, or human activities, such as vegetation clearing, sand mining, or channelization. The study area encompasses Broadway Channel, including a 1.1-acre area of unvegetated channel, which is located south of the Proposed Project outside the footprint (Figure 2.1-1). Broadway Channel is a man-made flood control drainage tributary to Forester Creek that eventually drains to San Diego River located approximately 2 miles north of the Proposed Project site.

Urban/Developed (12000)
Developed areas support no native vegetation and may be additionally characterized by the presence of man-made structures such as buildings or roads. The level of soil disturbance is such that only the most ruderal plant species would be expected, and disturbed areas are often maintained to exclude native species. Urban/developed land encompasses approximately 6.1 acres of the Proposed Project site as a paved lot.

2.1.1.3 Special-Status Plants

A database search of special status plant species identified three species occurring on or having the potential to occur within a 1-mile radius of the Proposed Project site identified three species: coast barrel cactus (*Ferocactus viridescens*), San Diego ambrosia (*Ambrosia pumila*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). A general biological resources survey and focused plant species survey were conducted on March 24, 2006. Coast barrel cactus and smooth tarplant were not found on-site, and were determined to be absent from the study area.

San Diego ambrosia is known to occur on-site within a preserved fenced area, and was resurveyed in January 2009.

No additional sensitive plant species were identified. Species considered to have potential to occur in the study area are included in the Biological Report, which is provided as Appendix C to this PEIR.

San Diego Ambrosia
San Diego ambrosia is a federally listed endangered species under FESA. It occurs within open habitat in coarse substrates near drainages, in upland areas on clay slopes, and in areas dominated by sparse grasslands. The population of San Diego ambrosia located on-site consists of 0.18 acre located within a fenced preserve (Figure 2.1-1). The population was previously fenced and preserved as mitigation associated with the 1985 Gillespie Field Airport Master Plan EIR, prior to becoming a FESA-listed species.

On September 11, 2008, the FAA submitted a Biological Assessment (BA) to USFWS for consideration in accordance with FESA Section 7. Upon review of the BA, the USFWS issued a BO to FAA on September 1, 2009 (USFWS 2009). The BO identifies conservation measures to offset potential affects to the population which have been incorporated into this PEIR.

2.1.1.4 Special-Status Wildlife Species

A database search of special status wildlife species identified 11 species occurring on or having the potential to occur within a 1-mile radius of the Proposed Project site: Quino checkerspot butterfly (*Euphydryas editha quino*), orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), San Diego horned lizard (*Phrynosoma coronatum blainvellei*), cactus wren (*Campylorhynchus brunneicapillus*), California gnatcatcher (*Polioptila californica californica*), Cooper's hawk (*Accipiter cooperi*), least Bell's vireo (*Vireo bellii pusillus*), rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Amphispiza belli belli*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-breasted chat (*Icteria virens auricollis*). From the database records, it was determined that the federally threatened California gnatcatcher and state species of concern rufous-crowned sparrow are located approximately 0.5 mile northeast of the Proposed Project site.

A habitat assessment for potential sensitive wildlife species was conducted, and the Proposed Project site was found not to be suitable for sensitive wildlife species due to the high level of disturbance on-site and surrounding urban development. Therefore, no focused or protocol surveys for sensitive wildlife species were conducted. During general biological surveys, none of the species identified above were found to occur on the Proposed Project site. Furthermore, due to the high level of disturbance on-site and surrounding urban development, the site supports a low diversity of wildlife species.

A list of sensitive wildlife species with the potential to occur within the study area and a list of all wildlife species detected during the surveys are provided in the Biological Report, which is provided as Appendix C to this PEIR.

2.1.1.5 Jurisdictional Wetlands and Waterways

The Proposed Project site does not contain any federal- or state-regulated waters or wetlands. The study area, which includes Broadway Channel, does contain 1.1 acres of unvegetated channel and 0.05 acre of freshwater marsh. However, a wetland delineation was not completed for Broadway Channel as it is not located within the Proposed Project site, and would be avoided.

2.1.1.6 Wildlife Movement and Nursery Sites

The Proposed Project site is highly disturbed and surrounded by urban development and similarly disturbed lands. Therefore, due to the high level of disturbance, there is no evidence that the Proposed Project site serves as a corridor supporting the movement of migratory or resident wildlife species.

2.1.2 Analysis of Project Effects and Determination of Significance

The following significance thresholds for biological resources are from the *County's Guidelines for Determining Significance – Biological Resources* (County of San Diego 2010a), and are based on criteria provided in Appendix G of the State CEQA Guidelines. A significant impact would result if the project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or the USFWS.
2. Have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.
4. Interfere substantially with the movement of a 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.
5. Conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

2.1.2.1 Special-Status Species

Plant or wildlife species are considered sensitive if they are: (1) on List A, B, C, or D of the County Sensitive Plant List or in Group 1 or 2 of the County Sensitive Animal List (County of San Diego 2010a); (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on List 1B (considered endangered throughout its range) or List 2

(considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2011a); or (4) considered rare, endangered, or threatened, or a Species of Special Concern by the CDFG (CDFG 2011a) or by local conservation organizations or specialists.

Raptors (birds of prey) and active raptor nests are protected by the CDFG Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (CDFG 1991). Additionally, bald and golden eagles are protected under the federal Bald Eagle Act, and nesting migratory birds (individuals, their nests, and young) are protected by the federal MBTA.

Guidelines for the Determination of Significance

A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

Analysis

Special-Status Plant Species

San Diego Ambrosia

A total of 0.18 acre of San Diego ambrosia, a federally listed plant species, is located within a fenced preserve located on the Proposed Project site (Figure 2.1-1). Permanent impacts to this species during public infrastructure development would result in a *significant impact* (BI-1).

No other special-status plant species were found to occur within the Proposed Project site. The County will conduct focused special-status floral surveys prior to project construction.

Special-Status Wildlife Species

The Proposed Project site currently supports a low diversity of wildlife species due to the high level of disturbance and surrounding airport, industrial, and residential development. The Proposed Project site would include clearing of approximately 62.9 acres of disturbed land, 1.1 acres of non-native grassland, and 6.1 acres of urban/developed land. During the biological surveys, no raptors, or state- or federal-listed wildlife species were observed on-site. Furthermore, no habitat for endangered, threatened, or special-status wildlife species was identified in the study area. Because the Proposed Project site is highly disturbed due to ongoing maintenance and mowing activities as well as a paved lot, there is no evidence that these species have the potential to occur on-site. Therefore, *no impact* would occur to special status wildlife species as a result of the Proposed Project.

2.1.2.2 Riparian Habitat or Sensitive Natural Communities

For purposes of this report, sensitive vegetation communities are those identified by CDFG (CNDDB 2006; Oberbauer et al 2008) or the County (County 2010a). Reasons for the sensitive status of vegetation communities include restricted range, cumulative losses throughout the region, and a high number of endemic sensitive plant and wildlife species that occur in the vegetation communities. These communities are considered sensitive whether or not they have been disturbed. Following CEQA Guidelines, riparian and sensitive habitats are discussed in a separate section from wetlands.

Guidelines for the Determination of Significance
A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.

Analysis
The Proposed Project site supports 1.1 acres of non-native grassland, a sensitive natural community. The Proposed Project would result in permanent impacts to all 1.1 acres located on-site. Therefore, this would result in a *significant impact* to a sensitive natural community (BI-2).

2.1.2.3 Federal Wetlands

Guidelines for the Determination of Significance
A significant impact to biological resources would occur if the project would:

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Analysis
The Proposed Project would include clearing of disturbed/developed lands and non-native grassland. The Proposed Project site does not contain any federal- or state-regulated wetlands or waters. Broadway Channel, which is a man-made flood-control facility, is located within the study area and contains 1.1 acres of unvegetated channel and 0.05 acre of freshwater marsh. However, Broadway Channel is not located within the Proposed Project site, and would be avoided. Therefore, *no impact* would occur to federal wetlands as a result of the Proposed Project.

2.1.2.4 Wildlife Movement and Nursery Sites

Guidelines for the Determination of Significance
A significant impact to biological resources would occur if the project would:

- Interfere substantially with the movement of a 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.

Analysis
The Proposed Project site currently supports a low diversity of wildlife species due to the high level of disturbance and surrounding airport, industrial, and residential development. The Proposed Project site would include clearing of approximately 62.9 acres of disturbed land, 1.1 acres of non-native grassland, and 6.1 acres of urban/developed land. Furthermore, the site is regularly maintained and mowed once per year. There is no evidence that the project site serves as a corridor supporting the movement of migratory or resident wildlife species.

Although no raptors and migratory birds have been observed on-site, full implementation or build-out of the Proposed Project site is not anticipated to occur until the entire 70-acres is fully developed in 2019. The likelihood that the Proposed Project site would support suitable nesting habitat for raptors and migratory birds is low as long as regular maintenance and mowing is conducted to prevent suitable habitat vegetation to re-grow at the site (AMEC 2011). The County would continue regular maintenance of the Proposed Project site until build-out and conduct preconstruction nesting bird surveys for all future construction activities that are within the breeding season (i.e., February 1 to August 30). Surveys should be conducted by a qualified avian biologist no longer than 72 hours prior to the commencement of construction activities. Nest surveys should be conducted within the construction site and a 500-foot buffer of the construction site to assess both direct and indirect impacts to nesting bird species. If nesting activity is detected, an appropriate buffer, determined based on the species nesting, should be flagged, and construction activity within the buffer should be delayed until the young have fledged or the nest is no longer active, as determined by a qualified avian biologist. Subsequent nesting bird surveys should be conducted if construction is halted for more than 72 hours at any time during the breeding season. Implementation of these measures would ensure the protection of raptors and/or migratory birds protected under the MBTA, should they be present on-site during future construction activities. Therefore, the Proposed Project would have *no impact* to the movement of a 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.

2.1.2.5 Local Policies, Ordinances, Adopted Plans

Guidelines for the Determination of Significance
A significant impact to biological resources would occur if the project would:

- Conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Analysis
The Proposed Project is currently not located within a County MSCP-designated area. The Proposed Project site is owned by the County and is located within the municipal boundaries of the City of El Cajon. The Proposed Project site is not subject to any habitat conservation plan, natural community conservation plan, or associated policies or regulations as regulated by the City of El Cajon. Furthermore, preparation of the MSCP Subarea Plan for the City of El Cajon is currently in progress and has not been finalized (CDFG 2011b).

The Proposed Project is exempt from the County's Resource Protection Ordinance (RPO), which regulates land within unincorporated San Diego County, because the project is an essential public facility pursuant to Article 5 (Exemptions), no. 3. Furthermore, once the public infrastructure development is complete, no RPO resources would be present for the private development to disturb. Therefore, *no impact* would occur as the Proposed Project would not conflict with local policies or ordinances protecting biological resources, including adopted habitat conservation plans.

2.1.3 Cumulative Impact Analysis

A list of past, present, and reasonably foreseeable projects is provided in Table 1.2 and depicted in Figure 1-4, based on research of the County Department of Planning and Land Use (DPLU) databases. This list is the basis for the cumulative impact discussion. The cumulative study area encompasses a 1-mile radius around the Proposed Project site. This boundary was extended to accommodate for cumulative projects with impacts to biological resources, specifically San Diego ambrosia. This is an appropriate cumulative boundary because the area surrounding the Proposed Project is fully developed and does not provide natural boundaries. While 49 projects were identified to be within the Proposed Project cumulative study area, only 11 identify impacts to biological resources.

Special-Status Species
The Proposed Project would result in significant impacts to San Diego ambrosia and has identified mitigation measures to reduce this impact to less than significant pursuant to the BO issued by USFWS on September 1, 2009 (USFWS 2009). One cumulative project identified potential impacts to San Diego ambrosia. However, these impacts would not have the potential to contribute to a significant cumulative impact to San Diego ambrosia as the County and each cumulative project Lead Agency would be required to comply with FESA Section 7 and consult

with USFWS prior to construction. Consultation with USFWS, an agency responsible for threatened and endangered species, and subsequent issuance of a BO ensures appropriate project mitigation is implemented so direct and cumulative impacts are avoided and threatened and endangered species are preserved.

No impacts to nesting birds/raptors were identified for the Proposed Project. Six cumulative projects have the potential to result in significant impacts to nesting birds/raptors. These projects are located beyond 500 feet from the Proposed Project site. However, should raptors and/or migratory birds protected under the MBTA be present on the Proposed Project site during future construction activities, the County would implement the measures as described in Section 2.1.2.4; therefore, the Proposed Project combined with the cumulative projects would result in *no cumulatively considerable impacts* to nesting birds or raptors.

Sensitive Natural Communities

The Proposed Project would result in permanent impacts to 1.1 acres of non-native grassland. Eight of the cumulative projects identified potential impacts to non-native grassland totaling 56.30 acres. Total significant impacts to non-native grassland from the proposed and cumulative projects would be mitigated at 0.5:1 ratio (per County Biological Guidelines for Determining Significance) to a level below significance through habitat-based mitigation and/or preservation. Impacts to non-native grassland from the Proposed Project do not constitute a cumulatively considerable impact to this vegetation community due to the small proportion of non-native grassland impacts (1.1 acres) relative to the overall non-native grassland impacted (56.30) within the cumulative study area. Therefore, cumulative impacts to non-native grassland would be reduced to *less than significant*.

Jurisdictional Wetlands and Waterways

As the Proposed Project would not result in impacts to jurisdictional wetlands/waterways with incorporated design features, the project would not contribute to a net loss of these resources. Three of the cumulative projects identified potential impacts to jurisdictional wetlands/waterways; however, these projects would be required to comply with federal, state, and local regulations. In addition, all impacts would be fully mitigated in coordination with the U.S. Army Corps of Engineers, the Regional Water Quality Control Board (RWQCB), and the CDFG, as applicable, through enhancement, restoration, and/or creation to meet the no-net-loss policy for wetlands. Therefore, *no cumulative impacts* would occur as the Proposed Project would not contribute to a significant cumulative impact.

2.1.4 Significance of Impacts Prior to Mitigation

BI-1 The project will permanently impact 0.18 acre of San Diego ambrosia, a federal-listed endangered species. This would result in a *significant direct impact*.

BI-2 The project will permanently impact 1.1 acres of non-native grassland, a sensitive vegetation community. This would result in a *significant direct impact*.

2.1.5 Mitigation Measures

The following section provides a summary of estimated project impacts to sensitive biological resources and associated mitigation measures.

Impact BI-1: Impacts to San Diego ambrosia

The following mitigation measures are identified in the BO issued by USFWS on September 1, 2009 (file no. FWS-SDG-08B0338-09F0902), to offset impacts to San Diego ambrosia:

M-BI-1a The County will offset direct impacts to 0.18 acre of San Diego ambrosia through transplantation of all individuals within the Proposed Project footprint to a 2.9-acre native grassland area north of the San Diego River, within MTRP[3] as directed in the BO issued by USFWS on September 1, 2009.

A survey will be conducted before project impacts occur to ensure that all San Diego ambrosia have been located and mapped within the Proposed Project footprint. The outer perimeter of each ambrosia patch will be delineated on the ground with spray paint. If any ambrosia stems are discovered outside of this pre-transplantation mapped area of ambrosia, the County will reinitiate consultation with USFWS.

M-BI-1b A San Diego ambrosia transplantation plan will be approved by USFWS before any impacts to the species may occur. The plan will be implemented by a biologist or botanist with experience transplanting sensitive plant species (i.e., transplantation biologist). The transplantation plan will serve to guide the transplantation effort and the initial five-year monitoring program.

M-BI-1c The ambrosia transplantation plan as described in the BO issued by USFWS will include the following:

- Individual clusters of ambrosia will be salvaged as blocks and transplanted to the transplantation site at MTRP using similar spacing and distribution as at the Proposed Project site.
- Ten percent of ambrosia within the clusters will be removed from the Proposed Project site, following the USFWS-approved transplantation plan, and will be grown in large flats at a nursery/greenhouse and used for later out-planting at the MTRP transplantation site.
- The exact location at the transplantation site where the cut-blocks containing ambrosia propagules will be transplanted will be determined in the field by the transplantation biologist, in coordination with the USFWS, prior to transplantation.

[3] MTRP is protected by open space easements and is managed by the City of San Diego Department of Parks and Recreation.

- The methods of transplantation, monitoring, and maintenance will be developed in coordination with the USFWS. The agreed-upon methods will be described in the transplantation plan, and will include specifics such as timing of transplantation, preparation of the donor and receptor sites prior to transplantation, placement of San Diego ambrosia, predator control and protective fencing, weeding, irrigation, length and type of monitoring, maintenance, and success criteria.
- The 2.9-acre San Diego ambrosia transplantation site will be restored with native grasses.

M-BI-1d The receptor site will be fenced off to delineate areas containing the transplanted San Diego ambrosia to minimize the potential effects of herbivory.

M-BI-1e The County will be responsible for long-term management of the transplantation site at MTRP.

M-BI-1f The transplanted ambrosia population will be monitored for a minimum of 5 years, in accordance with the requirements of the USFWS-approved translocation plan, to document success of the transplantation efforts. Success will be achieved when 80 percent of the transplanted San Diego ambrosia plugs are established and expand from the transplanted plugs as clones and/or newly established individuals.

M-BI-1g All San Diego ambrosia propagules taken from the Proposed Project site for nursery/greenhouse growing will be out-planted at the restoration site to increase the probability of transplantation success. Out-planting of the nursery/greenhouse-grown San Diego ambrosia plants will occur during the five-year monitoring period as determined by the transplantation biologist in coordination with the USFWS. In the event of transplantation failure, the transplantation plan will include a contingency plan to offset impacts to San Diego ambrosia.

M-BI-1h In addition to the USFWS-approved transplantation plan, a long-term management strategy will be approved by the USFWS before any impacts to San Diego ambrosia may occur. County staff will be responsible for ensuring that the transplanted ambrosia population is managed consistent with this long-term management strategy.

M-BI-1i The 0.18-acre San Diego ambrosia population was previously fenced and preserved as mitigation associated with the 1985 Gillespie Field Airport Master Plan EIR. To offset these impacts, the County would conserve an additional 1.1 acres of existing San Diego ambrosia by acquiring land or securing a conservation easement over land with an existing San Diego ambrosia population that is currently not conserved.

Impact BI-2: Impacts to Sensitive Vegetation Community

M-BI-2 Permanent impacts to non-native grassland would be mitigated at a 0.5:1 ratio through preservation of in-kind habitat or a vegetation community of higher biological value. This mitigation would be located within the receptor site of the transplanted or preserved San Diego ambrosia discussed in M-BI-1.

2.1.6 Conclusion

Impact BI-1, which is associated with permanent impacts to San Diego ambrosia, would be reduced to a level below significance by transplanting the population to a suitable receptor site, MTRP, consistent with the BO issued by USFWS (Appendix C). Implementation of mitigation measure M-BI-1 would ensure that the Proposed Project would be managed and monitored through a long-term management strategy and would not impact the survival of the population of this federally endangered species.

Significant impacts to sensitive vegetation communities, including non-native grassland (Impact BI-2), would be reduced to a level below significant through implementation of in-kind habitat (or vegetation community of higher biological value) at a 0.5:1 ratio at the MTRP located within the transplanted or preserved San Diego ambrosia site.

With implementation of the mitigation measures provided above, impacts to biological resources would be mitigated to below a level of significance. No cumulative impacts related to biological resources were identified for the Proposed Project.

Table 2.1-1. Vegetation Communities within the Study Area

Habitat Type	Study Area (acres)	Within PIA (acres)	Outside PIA (acres)
Disturbed Habitat	62.9	62.9	--
Urban/Developed	6.1	6.1	--
Unvegetated Channel	1.1	--	1.1
Freshwater Marsh	0.05	--	0.05
Non-native Grassland	1.1	1.1	-
Total	**71.2**	**70.0**	**1.2***

*Total may differ from subtotals due to rounding.
Source: Biological Resources Impact Analysis Technical Report (AMEC 2011).

Not to Scale

Legend

- San Diego ambrosia Vegetation Community
- Non-native Grassland
- Disturbed Habitat
- Urban/Developed
- Non-vegetated Channel
- Freshwater Marsh
- Proposed Project Footprint
- Survey Area

Vegetation Communities

Figure 2.1-1

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2.2 Hazards and Hazardous Materials

This section presents information and analysis of the potential impacts relating to hazards and hazardous materials for the development of the Proposed Project site. The analysis is based on the Environmental Due Diligence Audit (EDDA) Phase I Environmental Site Assessment (ESA) and Phase II ESA prepared for the project by Rincon Consultants, which are included as Appendix E to this PEIR (Rincon 2011a, 2011b). The purpose of the Phase I and Phase II ESAs was to identify and evaluate the presence of recognized environmental conditions (RECs) associated with possible soil and groundwater contamination at the Proposed Project site. A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

2.2.1 Existing Conditions

A review of historical aerial photographs, topographic maps, city directories, and building permits was conducted by Rincon. Aerial photographs showed that the Proposed Project site was primarily vacant with portions in residential use from 1901 to 1953. After 1953, the Proposed Project site was vacant until 1958. From 1958 until 2006, a motor vehicle racing track existed in the northwestern portion. Presence of row crops was also observed in the 1963 aerial photograph on the southeastern portion of the Proposed Project site; however, it does not appear in the earlier or later sources reviewed by Rincon. From 1990 until 2006, there were storage uses in the southern portion of the Proposed Project site, and a golf driving range was depicted in 1996 and 2002 aerial photographs. Between 2005 and 2006, the race track facility was demolished and vacated. Rincon conducted site reconnaissance surveys to observe the existing on-site conditions (Figure 2.2-1). The Proposed Project site is currently undeveloped, vacant, and graded land. A population of San Diego ambrosia, a federal-listed endangered species, is contained on-site within a fenced 1.1-acre ecological preserve that is located in the southwestern portion. A paved lot is also located in the southwestern portion of the Proposed Project site. To the south of the paved lot is a groundwater irrigation well. The irrigation well has been welded shut as observed by Rincon on April 22, 2011. Based on records review, four groundwater monitoring wells are indicated to be located on the site. Markers indicating the presence of an underground water utility line were observed running in a northeasterly direction across the property. An overhead power line was observed traversing the site from east to west along the former unpaved Denny Way.

The Proposed Project site is surrounded by an area that is primarily comprised of commercial and industrial land uses (Figure 2.2-2). Properties within the vicinity of the Proposed Project site include commercial businesses to the southwest across Floyd Smith Drive; commercial businesses to the southeast across Bradley Avenue, and light industrial uses including automotive repair and maintenance to the east across Wing Avenue. However, immediately north and west of the Proposed Project site is Gillespie Field Airport, which includes aircraft related businesses, hangar rentals, and airport administrative offices.

From the environmental site assessments conducted by Rincon, the following RECs were observed on the Proposed Project site:

- Stained soil in the eastern portion of the subject property;
- Unauthorized dumping, burning, and/or burying of tires, automotive or industrial batteries, hot water heaters, building materials, shingles, siding, insulation, and engine transmissions on the subject property;
- Former presence of row crops in the southeastern portion of the subject property;
- Total petroleum hydrocarbon (TPH) and polychlorinated biphenyl (PCB) impacted soil on the subject property; and
- Ketema trichloroethylene (TCE) and 1,4-dioxane contaminated groundwater plume and four on-site groundwater monitoring wells.

Based on previous environmental assessments conducted for the Proposed Project site, the storage and use of hazardous materials, including petroleum products, has previously occurred on-site, along with the unauthorized dumping, burning, and/or burying of tires, automotive or industrial batteries, hot water heaters, building materials, shingles, siding, insulation, and engine transmissions. In addition, the improper storage of petroleum products has reportedly resulted in hydrocarbon contamination of soil beneath the site, and the former presence of leaking transformers has resulted in PCB contaminated soil beneath the site.

Environmental Data Resources, Inc. (EDR) prepared a database search of public lists of sites that generate, store, treat, or dispose of hazardous materials, or sites on which a release or incident has occurred. The EDR search identified surrounding sites within a 1-mile radius of the Proposed Project site. The site was not listed in the EDR report; however, the former Ketema Aerospace and Engineering facility has a plume of groundwater impacted with chlorinated solvents (including PCE, TCE, 1,1,1-Trichloroethane (TCA), breakdown components of these products and the solvent stabilizing compound 1,4-dioxane) that is currently impacting the groundwater beneath the Proposed Project site. The plume is located within the shallow unconfined aquifer encountered at about 10 to 14 feet below grade. The TCE plume underlies approximately 75 percent of the subject property with concentrations in some areas exceeding 1,000 micrograms per liter.

2.2.2 Regulatory Setting

Regulations applicable to the Proposed Project are those related to hazardous materials and hazardous wastes, as well as management of areas contaminated by hazardous wastes. These regulations also are designed to limit the risk of accidental release during the use, transport, handling, storage, and disposal of hazardous materials. The Proposed Project will be subject to numerous federal, state, and local laws and regulations including those described below.

Federal Plans, Policies, Regulations, and Laws

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 United States Code Sec. 6901 et seq.) was enacted in 1976 as an amendment to the Solid Waste Disposal Act to address the nationwide generation of municipal and industrial solid waste. The RCRA gives the EPA authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste, including underground storage tanks storing hazardous substances. The RCRA also establishes a framework for the management of nonhazardous wastes. The RCRA addresses only active and future facilities; it does not address abandoned or historical sites, which are covered by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); see following section.

The RCRA was updated in 1984 by the passage of the federal Hazardous and Solid Waste Amendments, which required land disposal of wastes to be gradually phased out. The amendments also increased the EPA's enforcement authority and established more stringent hazardous waste management standards, including a comprehensive underground storage tank program.

CERCLA

The 1980 CERCLA, also called the Superfund Act (42 USC Sec. 9601 et seq.), is intended to protect the public and the environment from the effects of prior hazardous waste disposal and new hazardous material spills. Under the CERCLA, the EPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. The CERCLA also provides federal funding (the Superfund) for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (PL-99-499) amends some provisions of the CERCLA and provides for a Community Right-to-Know program.

Pursuant to the CERCLA, the EPA maintains a National Priority List of uncontrolled or abandoned hazardous waste sites identified for priority remediation under the Superfund Program. Sites are identified for listing on the basis of the EPA's hazard ranking system. Sites may also be placed on the National Priority List if they meet the following requirements:

- The Agency for Toxic Substances and Disease Registry of the U.S. Public Health Service has issued a health advisory that recommends removing people from the site.
- The EPA has determined that the site poses a significant threat to public health.
- It will be more cost-effective for the EPA to use its remedial authority than its emergency removal authority to respond to the hazard posed by the site.

Superfund Amendments and Reauthorization Act of 1986

The Superfund Amendments and Reauthorization Act of 1986 (SARA) was signed into law on October 17, 1986. This act amended the existing CERCLA law. SARA made several important changes and additions to the CERCLA program, including: (1) stressing the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; (2) requiring Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; (3) providing new enforcement authorities and settlement tools; (4) increasing state involvement in every phase of the Superfund program; (5) increasing the focus on human health problems posed by hazardous waste sites; (6) encouraging greater citizen participation in making decisions on how sites should be cleaned up; and (7) increasing the size of the trust fund to $8.5 billion. The law authorizes two kinds of response actions: short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on the EPA's National Priorities List (NPL).

Emergency Planning and Community Right-to-Know Act

Also known as Title III of SARA, the Emergency Planning and Community Right-to-Know Act (EPCRA) (42 USC 11001 et seq.) was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement the EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC). The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. EPCRA provides requirements for emergency release notification, chemical inventory reporting, and toxic-release inventories for facilities that handle chemicals.

Federal Occupational Safety and Health Regulations

The Occupational Safety and Health Administration promulgates regulations that are designed to protect the health and safety of employees during work hours. These regulations are found in 29 CFR Part 1910, titled *Occupational Safety and Health Standards* and Part 1926 titled *Safety and Health Regulations during Construction*. The regulations range from methods for preventing slips and trips to requirements for working with explosives and other hazardous materials.

Uniform Fire Code

The Uniform Fire Code (UFC) 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 UFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The UFC and the Uniform Building Code (UBC) use a hazard classification system to determine what protective measures are required for 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 UFC employs a permit system based on hazardous materials classifications.

Chemical Accident Prevention Provisions

The provisions listed under CFR Part 68 set forth the list of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the state accidental release prevention programs approved under Section 112(r). The California Accidental Release Prevention Program described below is the state adaptation of this federal regulation. The list of federally regulated substances and federally regulated flammable substances and their threshold quantities can be accessed online from the State's Office of Emergency Services' website, http://www.oes.ca.gov.

EPA, Region 9 Preliminary Remediation Goals

Region 9 of the EPA covers the southwestern United States and includes the following geographic areas: Arizona, California, Nevada, and Hawaii. Region 9 also works with 147 federally recognized tribes in the Pacific Southwest. Region 9 has developed Preliminary Remediation Goals (PRGs) for contaminated properties. PRGs are tools for evaluating and cleaning up contaminated sites. They are risk-based concentrations that are intended to assist risk assessors and others in initial screening-level evaluations of environmental measurements. The PRGs are agency guidelines, not legally enforceable standards. They are used for site "screening" and as initial cleanup goals but are not de facto cleanup standards.

State Plans, Policies, Regulations, and Laws

The California Health and Safety Code, UST Regulations 13

Chapter 6.7 of the California Health and Safety Code (H&SC) outlines the requirements for Underground Storage Tanks (USTs) and identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators of USTs.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs) or "Chisels" are concentrations of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (CalEPA) considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the California Office of Environmental Health Hazard Assessment on behalf of CalEPA and are contained in their report entitled "Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil." The thresholds of concern used to develop the CHHSLs are lifetime cancer risks greater than one case in one million persons. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and CalEPA. 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 CHHSLs can be assumed not to pose a

significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

Hazardous Materials Release Response Plans and Inventory Act

The Hazardous Materials Release Response Plans and Inventory Act of 1985, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a hazardous materials business plan that describes their facilities, inventories, emergency response plans, and training programs. Under the Business Plan Act, *hazardous materials* are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste, although the health concerns pertaining to the release or inappropriate disposal of these materials are similar to those relating to hazardous waste.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal program under the RCRA. The Hazardous Waste Control Act is implemented by regulations contained in 26 California Code of Regulations (CCR) that describe the following aspects of hazardous waste management: identification and classification; sources; transport; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities, including staff training; closure of facilities; and liability issues. Regulations in 26 CCR list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of them. Under the Hazardous Waste Control Act and 26 CCR, hazardous waste generators must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with the California Department of Toxic Substances Control (DTSC).

Hazardous Waste Control Law

California H&SC, Division 20, Chapter 6.5 is the basic hazardous waste law for California and implements the federal RCRA cradle-to-grave waste management system in California. Hazardous waste regulations in California can be found in Title 22, Division 4.5, of the Environmental Health Standards for the Management of Hazardous Wastes. The program is administered by the DTSC.

Hazardous Material Release Response Plans and Inventory Law

California H&SC, Division 20, Chapter 6.95 is a state right-to-know law that requires businesses to develop a Hazardous Material Management Plan (“business plan”) for hazardous materials emergencies if they handle more than 500 pounds, 55 gallons, or 200 cubic feet of hazardous materials. In addition, the business plan includes an inventory of all hazardous materials stored or handled at the facility above these thresholds. This law is designed to reduce the occurrence and severity of hazardous materials releases. The business plan must be submitted to the Certified Unified Program Agency. The state has integrated the federal EPCRA reporting

requirements into this law, and once a facility is in compliance with the local administering agency requirements, submittals to other agencies are not required.

California Occupational Safety and Health Administration Standards

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary state agency responsible for worker safety in the handling and use of chemicals in the work place. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Chapter 3.2). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Local Plans, Policies, Regulations, and Ordinances

San Diego County General Plan

The Mobility Element (County 2011a) and the Safety Element (County 2011c) address hazardous substances and fire protection and emergency services. Emergency response to hazardous materials incidents are provided through the Hazardous Incident Response Team.

San Diego County, Local Enforcement Agency (LEA)

The LEA is the lead agency required to investigate and inspect active, closed, illegal, and abandoned waste disposal sites in the unincorporated County of San Diego and incorporated cities, with the exception of the City of San Diego. The LEA is responsible for inspection and permitting of active solid waste disposal sites as a certification responsibility required by the California Integrated Waste Management Board (CIWMB) and pursuant to their enforcement responsibilities of CCR, Title 27, Environmental Division 2, Solid Waste Standards, relating to the protection of public health, safety, and the environment. The LEA, in coordination with the San Diego RWQCB and CIWMB, can review work plans and site assessment reports and issue "no further action" letters related to the remediation of burn ash sites.

San Diego County, Site Assessment and Mitigation Program

The San Diego County Site Assessment and Mitigation (SAM) Program, within the Land and Water Quality Division of the Department of Environmental Health (DEH), is charged with protection of human health, water resources, and the environment within San Diego County by providing oversight of hazardous materials site 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. SAM maintains an environmental assessment case listing at http://www.co.sandiego.ca.us/deh/lwq/sam/index.html.

County of San Diego, UST Program

The DEH Hazardous Materials Division (HMD) UST Program administers and enforces federal and state laws and regulations and local ordinances for the construction, installation, modification, upgrade, and removal of USTs in San Diego County. If contamination is discovered or likely to be present, owners or operators of USTs are required by law to report the contamination to the DEH HMD and SAM programs and to take corrective action.

County of San Diego, Consolidated Fire Code

The County of San Diego is unique within the State of California in having 17 fire protection districts within its boundaries. For the purposes of prescribing regulations in the unincorporated area of the County of San Diego, the applicable fire code is known as the County Fire Code and includes the Consolidated Fire Code and adopts by reference the California Fire Code, 2001 edition (CCR T-24 part 9). The Consolidated Fire Code consists of local fire protection district ordinances that have modified the Fire Code portion of the State Building Standards Code and any County modification to the Fire Districts' amendments. The purpose of the Code is for the protection of the public health and safety and it includes permit and inspection 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.

2.2.3 Analysis of Project Effects and Determination of Significance

The identified significance thresholds for impacts related to hazardous materials are based on criteria provided in the County's Guidelines for Determining Significance to Hazardous Materials (County 2007g) and to Emergency Response Plans (County 2007h). These Guidelines were adapted from Appendix G of the CEQA Guidelines. A significant impact related to hazards and hazardous materials would occur if:

1. The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generates hazardous waste regulated under Chapter 6.5 of the H&SC, and/or stores hazardous substances in USTs regulated under Chapter 6.7 of the H&SC, and the project will not be able to comply with applicable hazardous substance regulations.
2. The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within 0.25 mile of the facility.
3. The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.519 or is

otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.

4. The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and as a result, the project would create a significant hazard to the public or the environment.
5. The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash), and, as a result, the project would create a significant hazard to the public or the environment.
6. The project is proposed on or within 1,000 feet of a formerly used defense site and it has been determined that it is probable that munitions or other hazards are located on-site that could represent a significant hazard to the public or the environment.
7. The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRG's, Cal/EPA CHHSL's, or primary state or federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
8. The project will involve the demolition of commercial, industrial, or residential structures that may contain Asbestos-containing Materials (ACM), Lead-based Paint (LBP), and/or other hazardous materials, and, as a result, the project would represent a significant hazard to the public or the environment.
9. The project proposed a unique institution (e.g., hospital, school, nursing facility, retirement home, mental health or other care facility, jail, stadium, arena, amphitheater, or other uses that would involve concentrations of people) in a dam inundation zone.
10. The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and, as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of emergency response.
11. The project would not comply with applicable fire codes.
12. The project would be inconsistent with a Fire Protection plan.
13. The project would not meet the emergency response objectives identified in the Safety Element of the County General Plan.

2.2.3.1 Hazardous Substance Handling

Guidelines for the Determination of Significance
A significant impact would occur if:

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generates hazardous waste regulated under Chapter 6.5 of the H&SC, and/or stores hazardous substances in USTs regulated under Chapter 6.7 of the H&SCs and the project will not be able to comply with applicable hazardous substance regulations; or

- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within 0.25 mile of the facility.

Analysis

The Proposed Project would entail the use, transport, exposure, or disposal of hazardous materials and waste related to construction of site improvements and during future operations at the site. During construction at the Proposed Project site, gasoline, diesel fuel, lubricating oils, grease, solvents, and paint would be used at the site. Potential future uses of the Proposed Project site include aircraft operation and maintenance-related uses that could use hazardous materials such as petroleum products, cleaners, and solvents on a routine basis. Activities that involve the use or disposal of hazardous materials would be required to follow applicable federal, state, and local laws related to the transportation, storage, and handling of hazardous materials, and the risk of significant impact would be low. Failure to comply with existing local, state, or federal laws and regulations on hazardous materials during construction or operation of the 70-acre site could result in unknown releases of hazardous materials.

Design features, when incorporated into the design of future redevelopment on the Proposed Project site, would avoid a significant hazard to the public or the environment. The County shall ensure that all contractors and subcontractor project personnel receive training regarding the appropriate work practices necessary to comply with the applicable environmental laws and regulations related to hazardous material spill prevention and response measures. The County shall prepare and implement a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) to address routine use of hazardous materials, in conformance with title 40, CFR, Part 112; and a Storm Water Pollution Prevention Plan (SWPPP) in conformance with the State Water Resources Control Board prior to the construction of facilities improvements to reduce pollutants in storm water runoff. Additionally, as a condition of lease agreements for development, the County shall require project developers of individual development projects to prepare a SWPPP and Business Emergency Plan (BEP) to address transport, storage, use, and disposal of hazardous materials following construction of proposed developments. County Airports shall also prepare a BEP to address transport, storage, use, and disposal of hazardous materials related to construction and operation of planned facilities improvements. Through the implementation of these design features, hazardous materials impacts would be *less than significant*.

As discussed above in Section 2.2.1, soil and/or groundwater contaminated with TCE and 1,4-dioxane from the Ketema plume, as well as TPH and PCB, were also identified. Grading or excavation on the site which may encounter soil and/or groundwater contaminated with TCE and 1,4-dioxane originating from the Ketema plume could present potential health risks to workers on the site or during operation of the proposed on-site aviation uses. This is a *significant indirect impact* (HZ-1).

2.2.3.2 Projects with Existing On-site Contamination

Guidelines for the Determination of Significance
A significant impact would occur if:

- The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.519 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burn sites) and, as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash) and, as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 1,000 feet of a formerly used defense site and it has been determined that it is probable that munitions or other hazards are located on-site that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRG's, Cal/EPA CHHSL's, or primary state or federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial or residential structures that may contain Asbestos-containing Materials (ACM), Lead-based Paint (LBP) and/or other hazardous materials and, as a result, the project would represent a significant hazard to the public or the environment.

Analysis
The EDR database searches did not identify the Proposed Project site as being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or on a hazardous release site identified by the DTSC compiled and updated pursuant to Section 25356 of the California H&SC, including landfills, burn ash, or munitions. The EDR search did, however, identify eight adjacent properties as sites that generate, store, or dispose of hazardous materials. A review of those sites indicated no evidence that a hazardous substance release occurred (Rincon 2011a). Therefore, there is *no significant impact* with respect to listings of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or on a hazardous release site identified by the DTSC compiled and updated pursuant to Section 25356 of the California H&SC. Furthermore, the Proposed Project site is currently vacant and graded and will require no demolition prior to construction. Therefore, there is no potential for the Proposed Project to create a public health hazard related to ACM, LBP, or other hazardous building materials.

2.2.3.3 Emergency Response Plans

Guidelines for the Determination of Significance
A significant impact would occur if:

- The project proposed a unique institution (e.g., hospital, school, nursing facility, retirement home, mental health or other care facility, jail, stadium, arena, amphitheater, or other uses that would involve concentrations of people) in a dam inundation zone.
- The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and, as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of emergency response.

Analysis
The Proposed Project is within the El Capitan Reservoir, Lake Jennings, and San Vicente Reservoir inundation areas. There are no confined bodies of water in the vicinity of the site. The Proposed Project would redevelop 70 acres within an existing 757-acre airport facility. The Proposed Project does not include a unique institution that would be difficult to effectively evacuate in the event of dam failure. The Proposed Project would not interfere with the Dam Evacuation Plans for El Capitan Reservoir, Lake Jennings, or San Vicente Reservoir. In addition, the project does not propose any structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist. Therefore, there would be a *less than significant impact* related to interference to emergency response plans.

2.2.3.4 Wildland Fire and Fire Protection

Guidelines for the Determination of Significance
A significant impact would occur if:

- The project would not comply with applicable fire codes;
- The project would be inconsistent with a Fire Protection plan; or
- The project would not meet the emergency response objectives identified in the Safety Element of the County General Plan.

Analysis
The Proposed Project would be compliant with all applicable fire codes. The project site is located in an urbanized area in the City of El Cajon and is not within or adjacent to a wildlands area. The Proposed Project site is surrounded by development and is not at severe risk of a wildland fire. The project would be served by an existing fire station located approximately two miles south in the City of El Cajon or an existing fire station located about the same distance to the north in the City of Santee. The likelihood of the project's construction or operation to result in a wildland fire is therefore considered low, and impacts would be *less than significant*.

Likewise, given the urbanized nature of surrounding land uses, the project itself would not expose people or structures to a significant risk of loss involving wildfires.

The Proposed Project site is within the boundary of the City of El Cajon and under the jurisdiction of the El Cajon Fire Department. The Proposed Project site would be served by El Cajon's Station 9 (1301 North Marshall) and, because of a mutual aid agreement, Santee's Station 4 (8950 Cottonwood). Both stations have an approximate response time of three minutes for all emergency calls. All dwelling units and structures within this jurisdiction are adequately served by this response time. The City of El Cajon Fire Department also provides protection to the industrial park and non-aviation use parcels within the airport property. Therefore, the Proposed Project would have a *less than significant impact*.

2.2.4 Cumulative Impact Analysis

A search of past, present, and future projects within a 1-mile radius of the Proposed Project area (per County thresholds) was conducted to determine if these projects have the potential to contribute to a cumulative impact related to hazardous materials and hazards due to transport and handling of hazardous materials during project construction and future operation. Table 1.2 lists the cumulative projects that occur or are expected to occur within approximately 1 mile of the Proposed Project site. Potential impacts to hazardous materials and hazards associated with the Proposed Project include: impacts related to the accidental spills of hazardous materials during construction or future operation of the redevelopment that could cause soil or groundwater contamination or potentially impact storm water runoff; and disturbance of contaminated soil and groundwater during construction activities or the operational phase of the project and/or excavation on the site that could encounter soil and/or groundwater contaminated with TCE and 1,4-dioxane originating from the Ketema plume, that could present potential health risks to construction workers or to future occupants of the site. Five of the 49 cumulative projects identified potentially significant impacts related to hazards and hazardous materials. One of these five projects (Map Indicator 24 in Table 1.2) identified contaminated groundwater on-site and recommended applicable mitigation measures to reduce the potentially significant impact.

An environmental database search was conducted for the project study area that identified hazardous materials in the study area. However, as required by law, each existing hazard or environmental condition must be mitigated or have a plan developed to safely protect the public from the hazard. Construction of the project and future operation at the site could increase the likelihood of exposure of people to hazardous materials or health risks associated with disturbance of hazardous materials. Each project's compliance with applicable laws and regulations would ensure that the cumulative risk of adverse public health effects associated with the use, storage, or transport of hazardous materials, or risk of upset during construction and operation, would be *less than significant*.

2.2.5 Significance of Impacts Prior to Mitigation

HZ-1 Grading or excavation on the site may disturb contaminated soil, presenting potential health risks to construction workers. Additionally, the presence of contaminated soil on the site may present significant health risks to future

occupants of the site. Excavation on the site may encounter soil and/or groundwater contaminated with TCE and 1,4-dioxane originating from the Ketema plume, presenting potential health risks to workers on-site or during operation of the proposed on-site aviation uses.

2.2.6 Mitigation Measures

Impact HZ-1: Risk of Hazardous Materials during Construction

M-HZ-1a: County Airports shall prepare a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds related to the construction of the taxiway, apron area, drainage facilities, and utility facilities on the site.

This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with EPA and County DEH requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site disposal, as needed, during site development.

The County prepared a Soil Management Plan (Rincon 2011c) for the Proposed Project to comply with this measure and it is included in Appendix E of this PEIR.

M-HZ-1b: As a condition of lease agreements for development between the County and private developers, County Airports shall require individual project developers to prepare and implement a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds and before any discharge to a public sewer system or storm drain. This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with EPA and County DEH requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site disposal, as needed, during site development. The Soil Management Plan for the private development projects shall be prepared by each individual developer and can tier off the Soil Management Plan already prepared for the public development portion, which is included in Appendix E.

M-HZ-1c: As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, the County shall require a qualified environmental monitor to be present during the construction phases of

individual development projects. The environmental monitor shall document the presence of contaminated soil and/or groundwater and shall assist in the excavation and off-site disposal of such soil and/or groundwater or the treatment and on-site reuse of such soil and/or groundwater.

County Airports shall ensure that a qualified environmental monitor will be present during the construction phases of taxiway, apron area, drainage facilities, and utility facilities at the site to document the presence of contaminated soil and/or groundwater. The environmental monitor shall assist in the excavation and off-site disposal of such soil or the treatment and on-site reuse of such soil and/or groundwater.

M-HZ-1d: As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, if development is planned where contaminated soils and/or groundwater are present, a human health risk assessment of these areas shall be conducted by the developer to evaluate potential health risks to future occupants of the site prior to occupation of any structures within the 70-acre site. Vapor transport and risk calculations shall be performed using the County DEH Vapor Risk 2000 spreadsheet model (October 5, 2004 revision). A Risk Based Corrective Action (RBCA) analysis shall be performed in accordance with American Society for Testing Materials ASTM PS-104 Standard Provisional Guide for Risk-Based Corrective Action using the RBCA spreadsheet system (RBCA Tool Kit for Chemical Releases). County Airports will also conduct a similar health risk assessment related to the construction of runway and taxiway improvements at the site.

2.2.7 Conclusion

The Proposed Project has the potential to result in the use, storage, transport, or disposal of hazardous materials during construction or future operation of the Proposed Project. However, potential impacts would be reduced to less than significant by requiring the identified design features, including appropriate training regarding work practices of construction contractors and subcontractors related to transport and handling of hazardous materials prior to construction; monitoring of construction activities to ensure compliance with required regulations; and ensuring a SWPPP is prepared and implemented.

Implementation of mitigation measures M-HZ-1 would ensure that impacts related to disturbance of contaminated soils and groundwater and release of hazardous materials during construction would be reduced to less than significant levels, consistent with the Hazardous Materials Technical Reports and Soil Management Plan (Appendix E). This would be accomplished by requiring preparation and implementation of a remediation plan for contaminated soils and a groundwater dewatering and treatment program for contaminated groundwater, and establishing protocol to be followed if hazardous waste or materials are encountered.

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Proposed Project Site Uses

Figure 2.2-1

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Surrounding Uses

Figure 2.2-2

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2.3 Transportation and Traffic

This section addresses potential impacts of the Proposed Project on traffic, transportation, and circulation. A Traffic Impact Analysis Technical Report was prepared for the Proposed Project by LOS Engineering, Inc. (LOS 2011). Their report is attached as Appendix I.

2.3.1 Existing Conditions

The circulation system in the Proposed Project vicinity includes roadways and intersections under the jurisdictions of the Cities of El Cajon and Santee and the unincorporated County, as well as SR-67, which is a state facility operated and maintained by the California Department of Transportation (Caltrans). The traffic study area is shown in Figure 2.3-1.

2.3.1.1 Existing Street System

The following summary is a brief description of the existing roadway system in the Proposed Project area, including roadway classifications in the relevant jurisdiction's transportation plans. These roadways located within the study area are depicted in Figure 2.3-2.

Airport Drive is an east-west roadway located within both the City of El Cajon (west of Wing Avenue) and the County (east of Wing Avenue). Within the City of El Cajon, Airport Drive is classified as an Industrial Roadway and is constructed with approximately 30 feet of pavement with one travel lane in each direction. Within the County of San Diego, Airport Drive is not classified on the County of San Diego Mobility Element map and is constructed with approximately 36 feet of pavement with one travel lane in each direction.

Bradley Avenue is an east-west roadway located within both the City of El Cajon (from Cuyamaca Street to Wing Avenue) and the County (east of Wing Avenue). Within the City of El Cajon, Bradley Avenue is classified as a Primary Roadway and is constructed with approximately 82 feet of pavement with two travel lanes in each direction, a center two-way left turn lane, and on-street parking on both sides of the roadway. Within the County, Bradley Avenue is classified as a Major Road on the County of San Diego Mobility Element map. From Wing Avenue to Magnolia Avenue, Bradley Avenue is constructed with approximately 82 feet of pavement with two travel lanes in each direction, a center two-way left turn lane, and on-street parking on both sides of the roadway. From Magnolia Avenue to the SR-67 southbound ramps, Bradley Avenue is constructed with approximately 80 feet of pavement. Eastbound travel has two through lanes with the outside lane being a right turn trap lane to the southbound SR-67 on-ramp. Westbound travel has one left turn lane, two through lanes, and one right turn lane.

Floyd Smith Drive is an east-west roadway located within the City of El Cajon and is classified as an Industrial Roadway. It has various roadway widths with the narrowest portion at approximately 24 feet of pavement with one travel lane in each direction.

Joe Crosson Drive is a north-south facility located within the City of El Cajon and is classified as an Industrial Roadway. Joe Crosson Drive is constructed within approximately 32 feet of pavement and has one travel lane in each direction. On-street parking is permitted on the west side.

Johnson Avenue is a north-south roadway located within the City of El Cajon and is variably classified as an Industrial Roadway and a Primary Roadway. Between Floyd Smith Drive and Bradley Avenue it has approximately 50 feet of pavement and contains one travel lane in each direction with on-street parking permitted on both sides of the roadway. Between Bradley Avenue and Vernon Way it is constructed within approximately 64 feet of pavement and contains two travel lanes in each direction with on-street parking permitted on both sides of the roadway.

Magnolia Avenue is a north-south roadway located within the unincorporated County, the City of El Cajon, and the City of Santee. Magnolia Avenue is classified as a Major Road on the County Mobility Element map between Bradley Avenue and Airport Drive. In the City of El Cajon, Magnolia Avenue is classified as a Secondary Street from Airport Drive to approximately 1,130 feet north of Airport Drive. In the City of Santee, Magnolia Avenue is not classified and is treated as a Major Arterial from approximately 740 feet south of Kenney Street to Kenney Street. From Kenney Street to Denny Way it is constructed with approximately 32 feet of pavement with one travel lane in each direction, and with on-street parking prohibited. From Denny Way to Bradley Avenue, it widens to 78 feet of pavement including two travel lanes in each direction.

Pioneer Way is a north-south roadway located within the City of El Cajon and is classified as an Industrial Collector. Pioneer Way is constructed with approximately 64 feet of pavement and contains two travel lanes in each direction with on-street parking permitted on both sides of the roadway.

Wing Avenue is a north-south roadway within the City of El Cajon and is classified as an Industrial Roadway. Wing Avenue has approximately 24 feet of pavement with one travel lane in each direction.

2.3.1.2 Existing Traffic Volumes

The traffic study area for the Proposed Project was determined by estimating project trip distribution within the local circulation system, and by determining the intersections and roadway segments that are most likely to be affected by the Proposed Project. The project proposes the full utilization of a 70-acre site for aviation uses, and, therefore, represents the maximum build-out of the site for the purposes of analyzing traffic impacts. Project analysis encompassed 18 roadway segments and 11 intersections (seven of which are signalized and four of which are un-signalized).

Manual intersection traffic counts and mechanical segment counts were conducted on March 26, 2011 (LOS 2011). The studied intersections were measured for morning and evening “peak-hour” periods. The studied segments were measured in terms of ADT, or the average number of

cars that traverse the roadway segment in a 24-hour period. The manual traffic counts were used to calculate Level of Service (LOS) grades for each studied roadway segment and intersection.

For the studied intersections involving freeway on- and off-ramps, traffic analysis also addressed Intersecting Lane Vehicles (ILV) impacts in accordance with Caltrans guidelines. ILV analysis compares hourly traffic to generalized operational standards.

Roadway Segments
The following roadway segments were addressed in the Traffic Impact Study:

- Airport Drive from Joe Crosson Drive to Wing Avenue
- Airport Drive from Wing Avenue to Magnolia Avenue
- Bradley Avenue from Cuyamaca Street to Marshall Avenue
- Bradley Avenue from Marshall Avenue to Johnson Avenue
- Bradley Avenue from Johnson Avenue to Pioneer Way
- Bradley Avenue from Pioneer Way to Wing Avenue
- Bradley Avenue from Wing Avenue to Magnolia Avenue
- Bradley Avenue from Magnolia Avenue to SR-67 southbound Ramps
- Bradley Avenue from SR-67 southbound (SB) Ramps to SR-67 northbound (NB) Ramps
- Floyd Smith Drive from Joe Crosson Drive to Bradley Avenue
- Joe Crosson Drive from Floyd Smith Drive to Airport Dr
- Johnson Avenue from Floyd Smith Drive to Bradley Avenue
- Johnson Avenue from Bradley Avenue to Vernon Way
- Magnolia Avenue from Kenney Street to Airport Drive
- Magnolia Avenue from Airport Drive to Denny Way
- Magnolia Avenue from Denny Way to Bradley Avenue
- Pioneer Way from Bradley Avenue to Cypress Lane
- Wing Avenue from Airport Drive to Bradley Avenue.

Level of Service (LOS) is an industry standard that measures the operational conditions of a given roadway segment or intersection. LOS is defined on a scale of A to F, where LOS A represents free-flowing traffic conditions with no restrictions on maneuvering or operation speeds, and LOS F represents forced flow, many stoppages, and low operating speeds. One studied roadway segment operates at an unacceptable level under existing conditions: Bradley Avenue between SR-67 southbound ramps to SR-67 northbound ramps, which operates at LOS E. All other roadway segments currently operate above acceptable standards (i.e., LOS D or better per County guidelines).

Intersections
The following intersections were addressed in the Traffic Impact Analysis:

- Bradley Avenue/Johnson Avenue (signalized)
- Bradley Avenue/Pioneer Way (signalized)
- Bradley Avenue/Wing Avenue (un-signalized)
- Bradley Avenue/Magnolia Avenue (signalized)
- Bradley Avenue/SR-67 southbound Ramps (signalized)
- Bradley Avenue/SR-67 northbound Ramps (signalized)
- Floyd Smith Drive/Joe Crosson Drive (un-signalized)
- Airport Drive/Wing Avenue (un-signalized)
- Airport Drive/Magnolia Avenue (un-signalized)
- Bradley Avenue/Cuyamaca Street (signalized)
- Bradley Avenue/Marshall Avenue (signalized)

One intersection operates at an unacceptable level under existing conditions: Bradley Avenue/SR-67 northbound ramps (p.m. peak hour). This intersection was also estimated to operate at capacity during the p.m. peak hour in the ILV analysis. All other studied intersections currently operate above acceptable standards (i.e., LOS D or better per County guidelines).

2.3.1.3 Existing Regulations and Standards

Local Regulations

County General Plan Mobility Element

The County General Plan Mobility Element (ME) establishes policies and implementation measures regarding the assessment and mitigation of traffic impacts of new development. One of the goals of the ME is to provide "a multi-modal transportation system that provides for the safe, accessible, convenient, and efficient movement of people and goods within the unincorporated County" (County 2011, p. 4-20). The ME also identifies Policy M-2.1 to "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…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" (County 2011, p.4-13).

County Guidelines for Determining Significance: Transportation and Traffic

The County of San Diego Board of Supervisors adopted a Transportation Impact Fee Ordinance (April 2005, updated January 2008) for the unincorporated area of San Diego County. The ordinance enables the County to implement Transportation Impact Fee (TIF) programs. The TIF program requires payment of fees that constitute a proposed project's fair share contribution towards the construction costs of the planned transportation facilities that are affected by the proposed development. The TIF Program provides a mechanism for mitigating the impacts created by future growth within the unincorporated area. The primary purpose of the TIF is two-fold: (1) to fund the construction of identified roadway facilities needed to reduce, or mitigate, projected cumulative traffic impacts resulting from future development within the County; and (2) to allocate the costs of these roadway facilities proportionally among future developing properties based upon their individual cumulative traffic impacts. CEQA Guidelines recognize that mitigation for cumulative impacts may involve the adoption of ordinances or regulations (CEQA Guidelines §15130) such as the County-adopted Transportation Impact Fee Program (County 2010b).

The Congestion Management Program (CMP), adopted in January 2003 by the San Diego Association of Governments (SANDAG) Board, requires a large project (greater than 2,400 ADT or more than 200 peak hour trips) to analyze its impact on the CMP transportation system. A CMP analysis was not prepared for the project because it would generate less than 2,400 ADT and less than 200 peak hour trips (SANDAG 2003).

The County's policies and guidelines for traffic impacts analysis are used in this section because they are more stringent than those used by the City of El Cajon and the City of Santee.

2.3.2 Analysis of Project Effects and Determination as to Significance

The following significance guidelines for transportation and traffic impacts are taken directly from the County's *Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic* (County 2010b). A significant impact to transportation and traffic would result if the Proposed Project would:

1. Pursuant to the County's General Plan Mobility Element, new development must provide improvements or other measures to mitigate traffic impacts to avoid:
    a. Reduction in LOS below C for on-site Mobility Element roads;
    b. Reduction in LOS below D for off-site and on-site abutting Mobility Element roads; and
    c. Significantly impacting congestion on roads that operate at LOS E or F.
2. Cause a roadway segment to operate below LOS D or, for segments of a two-lane road currently operating below LOS D, add more than 200 ADT to a segment operating at LOS E or more than 100 ADT to a segment operating at LOS F.

3. Significantly increase congestion at a signalized intersection currently operating at LOS E or F or cause a signalized intersection to operate at LOS E or F. For an intersection operating at LOS E, a significant increase is considered an addition of more than 2 seconds of delay. For an intersection operating at LOS F, a significant increase is considered an addition of more than 1 second of delay or more than 5 peak-hour trips at one of the intersection's critical movements.
4. The additional or redistributed ADT generated by the Proposed Project will add 21 or more peak hour trips to a critical movement of an un-signalized intersection and cause it to operate below LOS D; or add 21 or more peak hour trips to a critical movement of an un-signalized intersection currently operating at LOS E.
5. The additional or redistributed ADT generated by the Proposed Project will add 6 or more peak hour trips to a critical movement of an un-signalized intersection and cause the un-signalized intersection to operate at LOS F; or add 6 or more peak hour trips to a critical movement of an un-signalized intersection currently operating at LOS F.
6. The project would cause a hazard due to an existing transportation design feature.
7. The project would cause a hazard to pedestrians or bicyclists.
8. The project would conflict with adopted policies, plans, or programs supporting alternative transportation (cycling, walking, and transit use).

2.3.2.1 Roadway Segments

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Result in a reduction in LOS below C for on-site Mobility Element roads;
- Result in a reduction in LOS below D for off-site and on-site abutting Mobility Element roads; and
- Result in significantly impacting congestion on roads that operate at LOS E or F.
- Cause a roadway segment to operate below LOS D or, for segments of a two-lane road currently operating below LOS D, add more than 200 ADT to a segment operating at LOS E or more than 100 ADT to a segment operating at LOS F.

Analysis
Table 2.3-1 shows the estimated effect of the Proposed Project on the studied roadway segments in comparison to existing traffic conditions. This roadway segment currently operates at unacceptable levels under existing conditions. In addition, the Proposed Project would contribute 218 ADT, which is greater than the allowed threshold of 200 ADT. Traffic generated by the Proposed Project would result in significant impacts to the following roadway segment:

- Bradley Avenue between SR-67 southbound ramps to SR-67 northbound ramps.

Therefore, the Proposed Project would result in a *potentially significant impact* to roadway segments (TR-1). The County may coordinate with Caltrans to identify suitable measures that would contribute in the reduction of impacts.

2.3.2.2 Intersections

Guidelines for the Determination of Significance

Signalized

A significant impact would occur if the project would:

- Significantly increase congestion at a signalized intersection currently operating at LOS E or F or cause a signalized intersection to operate at LOS E or F. For an intersection operating at LOS E, a significant increase is considered an addition of more than 2 seconds of delay. For an intersection operating at LOS F, a significant increase is considered an addition of more than 1 second of delay or more than 5 peak-hour trips at one of the intersection's critical movements.

Un-signalized

A significant impact would occur if the project would:

- The additional or redistributed ADT generated by the Proposed Project will add 21 or more peak hour trips to a critical movement of an un-signalized intersection and cause it to operate below LOS D; or add 21 or more peak hour trips to a critical movement of an un-signalized intersection currently operating at LOS E.
- The additional or redistributed ADT generated by the Proposed Project will add 6 or more peak hour trips to a critical movement of an un-signalized intersection and cause the un-signalized intersection to operate at LOS F; or add 6 or more peak hour trips to a critical movement of an un-signalized intersection currently operating at LOS F.

Analysis

Table 2.3-2 shows the estimated effect of the Proposed Project on the studied intersections in comparison to existing conditions. Under existing conditions, all intersections operate at acceptable LOS, except for the signalized Bradley Avenue/SR-67 northbound ramps, which currently operate below acceptable LOS at LOS E (PM peak hour). The Proposed Project would increase the delay by 5.5 seconds to this intersection, which is greater than the significance threshold of 2 seconds for LOS E conditions at signalized intersections. Traffic generated by the Proposed Project would result in significant impact to the following signalized intersection:

- Bradley Avenue/SR-67 northbound ramps (PM peak)

Therefore, the Proposed Project would result in a *potentially significant impact* to signalized intersections (TR-2). The County may coordinate with Caltrans to identify suitable measures that would contribute in the reduction of impacts.

All un-signalized intersections located within the Proposed Project study area were determined to operate at acceptable LOS during existing and proposed traffic conditions. Therefore, *no impact* would occur to un-signalized intersections.

2.3.2.3 Hazards Due to a Transportation Design Feature

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Cause a significant hazard to an existing transportation design feature.

Analysis
The Proposed Project would not significantly impede emergency access to the project site. As specific site design of individual projects on the 70-acre site are proposed, private developers would be subject to the requirements and approval of the El Cajon Fire Department and would be required to demonstrate adequate access. Driveway locations and other circulation improvements will be designed to meet County standards and will also be required to demonstrate compliance with City of El Cajon Fire Department standards.

The Proposed Project entails closure of Airport Drive between Joe Crosson Drive and Wing Avenue, and traffic would be accommodated on existing surrounding roadways. This closure would not impede emergency access to or from the site or in the project vicinity. Projects proposed in the vicinity of Joe Crosson Drive would be subject to consultation with the El Cajon Fire Department to ensure that the Joe Crosson Drive emergency access would not be impeded or adversely affected. The Proposed Project does not entail construction of any site design features that would present hazardous traffic conditions. Therefore, there would be *no impact* with respect to traffic hazards or emergency.

2.3.2.4 Hazards to Pedestrians or Bicyclists

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Cause a hazard to pedestrians or bicyclists.

Analysis
No sidewalks, bike lanes, or transit stops currently exist on or around the Proposed Project site, with the exception of sidewalks along Bradley Avenue. The Proposed Project would not preclude the development of any future plans by the County, the City of El Cajon, or the City of Santee to implement future bike lanes or pedestrian facilities in the project vicinity. Therefore, there would be *no impact* with respect to pedestrian and bicycle access.

2.3.2.5 Alternative Transportation

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Conflict with adopted policies, plans, or programs supporting alternative transportation (cycling, walking, and transit use).

Analysis
Implementation of the Proposed Project would not conflict with adopted policies or involve elimination of facilities supporting alternative transportation. Gillespie Field is a general aviation airport, and the Proposed Project would allow for the development of additional aviation-use facilities. The Proposed Project would not generate a need for alternative transportation or conflict with adopted plans or programs supporting alternative transportation. Therefore, there would be *no impact* with respect to bus, pedestrian, and bicycle access, and the Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

2.3.3 Cumulative Impact Analysis

The County Guidelines for Determining Significance require the cumulative impact analysis to consider the existing conditions as compared to "existing + cumulative + Proposed Project conditions". The guidelines state that a project, which results in contribution to a cumulative significant impact, must mitigate its share of the cumulative impacts. The County may coordinate with Caltrans to identify suitable measures that would contribute in the reduction of impacts.

Segments
Table 2.3-3 depicts existing traffic conditions and cumulative project conditions (including the Proposed Project) on the studied segments. Roadway segments that operate below acceptable standards are represented in bold. As shown, the segment of Bradley Avenue between the SR-67 southbound and northbound ramps is anticipated to operate below acceptable standards under both the existing and cumulative conditions (with Proposed Project). Therefore, the Proposed Project's contribution to this segment is considered cumulatively significant (TR-C1). This impact occurs at the same location as described under direct impacts.

Intersections
Table 2.3-4 depicts existing traffic conditions and cumulative project conditions (including the Proposed Project) on the studied intersections. Intersections that operate below acceptable standards are represented in bold. As shown, the Bradley Avenue/SR-67 northbound ramps are anticipated to operate below acceptable standards under both the existing and cumulative conditions (with Proposed Project). Therefore, the Proposed Project's contribution to this intersection is considered cumulatively significant for the PM peak hour (TR-C2). This impact occurs at the same location as described under direct impacts.

2.3.4 Significance of Impacts Prior to Mitigation

TR-1: Addition of the Proposed Project traffic would exceed the significance thresholds at the segment of Bradley Avenue between the SR-67 southbound and northbound ramps because it would add 218 ADT under LOS E conditions, which is greater than the significance threshold of 200 ADT for a two-lane roadway operating under LOS E conditions. This results in a significant direct impact.

TR-2 Addition of the Proposed Project traffic would exceed the significance threshold at the intersection of Bradley Avenue and the SR-67 northbound ramps because it increases the delay by 5.5 seconds, which is greater than the significance threshold of 2 seconds for LOS E conditions (PM peak hour). This results in a significant direct impact.

TR-C1 Addition of the Proposed Project traffic combined with cumulative traffic to the segment of Bradley Avenue between the SR-67 southbound and northbound ramps would worsen anticipated cumulative conditions at that location because the project would add 218 ADT to the roadway segment. This is greater than the significance threshold of 200 ADT to a roadway segment currently operating at LOS E, and is considered a significant cumulative impact.

TR-C2 Addition of the Proposed Project traffic combined with cumulative traffic to the intersection of Bradley Avenue and the SR-67 northbound ramps would increase the delay by 9.6 seconds at that location, which is greater than the significance threshold of more than 2 seconds over existing conditions for LOS E (PM peak hour), and is therefore considered a significant cumulative impact.

2.3.5 Mitigation Measures

The following mitigation measures would be incorporated into implementation of the Proposed Project:

Impacts TR-1 and TR-2: Impacts to Roadway Segments and Intersections

Caltrans proposes to reconstruct the existing SR-67 interchange at Bradley Avenue. The construction schedule for this Caltrans project is not known at this time. The Bradley Avenue/SR-67 interchange project is estimated to cost approximately $34 million, and is included in the 2030 San Diego Regional Transportation Plan. Proposed improvements to the Bradley Avenue/SR-67 interchange would alleviate existing traffic congestion at this interchange, and could accommodate increased traffic volumes as a result of the Proposed Project. However, because the Bradley Avenue/SR-67 interchange project is not under the direct oversight or jurisdiction of the County, the County cannot anticipate that these improvements would be completed prior to implementation of the Proposed Project. Therefore, direct impacts would be *significant and unmitigable*.

Impacts TR-C1 and TR-C2: Cumulative Impacts

M-TR-C1/2 Cumulative impacts would be mitigated below the level of significance through payment into the County TIF program. In accordance with the TIF program, a designated financial contribution would provide adequate mitigation for cumulative impacts associated with development in the unincorporated County. According to the TIF program for calendar year 2011, the Proposed Project has a required fee of $396 per trip[4]. Based on this rate, the Proposed Project would result in the following TIF contribution:

Proposed Project TIF Contribution: 1,407 daily trips[5] x $396 per trip = $557,172

Completion of the financial contribution described above would fully mitigate for cumulative impacts described in TR-C1 and TR-C2.

2.3.6 Conclusion

Impacts TR-1 and TR-2 are associated with direct impacts to the segment of Bradley Avenue between the SR-67 southbound and northbound ramps, and the intersection of Bradley Avenue and the SR-67 northbound ramps. The direct segment impact and direct intersection impact can both be mitigated to below a level of significance through the construction of the proposed Caltrans Bradley Avenue/SR-67 interchange project. However, because the Bradley Avenue/SR-67 interchange project is a Caltrans project and not under the direct oversight and jurisdiction of the County, the County cannot anticipate that these improvements would be completed prior to implementation of the Proposed Project. Therefore, these direct impacts would be *significant and unmitigable*.

Impacts TR-C1 and TR-C2 are associated with cumulative impacts to the segment of Bradley Avenue between the SR-67 southbound and northbound ramps, and the intersection of Bradley Avenue and the SR-67 northbound ramps. Prior to construction of the Proposed Project, the County shall implement M-TR-C1/2. Therefore, because payment into the TIF program would fully mitigate for cumulative impacts, the Proposed Project would result in a less than significant impact to traffic and transportation.

[4] The current TIF Update (January 2008) includes fees based on building area (square footage). Because the area of the buildings is undetermined at this time, the TIF would be calculated based on number of vehicle trips entering and exiting the Proposed Project site, which was determined by the Traffic Impact Analysis. The TIF category of Select Industrial Uses is the only category that allows for the TIF calculation by vehicles trips. In addition, Gillespie Field is zoned as Industrial. Therefore, the TIF Area of Lakeside (in which the project site is located) has a required fee of $396 per trip for Select Industrial Uses.

[5] The Proposed Project would generate 1,407 ADT, which includes the 218 ADT (per TR-C1) that would be added to the identified roadway segment and intersection as a result of the Proposed Project. The 1,407 ADT will be distributed on mobility element roadways in the County that were analyzed by the TIF program.

Table 2.3-1. Existing + Proposed Project Segment Impacts

Segment	LOS E Capacity	Existing			Project Daily Volume	Existing + Proposed Project				
		Daily Volume	V/C	LOS		Daily Volume	V/C	LOS	Change in V/C	Project Impact?
Airport Drive										
Joe Crosson Dr. to Wing Ave.	4,500	908	0.202	C	NA	NA	NA	NA	NA	NA
Wing Ave. to Magnolia Ave.	4,500	1,172	0.260	C	-225	807	0.179	C	-0.081	No
Bradley Avenue										
Cuyamaca St. to Marshall Ave.	37,000	4,526	0.122	A	338	4,864	0.131	A	0.009	No
Marshall Ave. to Johnson Ave.	37,000	7,393	0.200	A	422	7,815	0.211	A	0.011	No
Johnson Ave. to Pioneer/Floyd Smith	37,000	8,487	0.229	A	352	9,404	0.254	A	0.025	No
Floyd Smith/Pioneer to Wing Ave.	37,000	11,190	0.302	A	689	12,787	0.346	A	0.043	No
Wing Ave. to Magnolia Ave.	37,000	11,599	0.313	A	464	12,653	0.342	A	0.028	No
Magnolia Ave. to SR-67 SB Ramps	34,200	18,125	0.530	B	295	18,420	0.539	B	0.009	No
SR-67 SB Ramps to SR-67 NB Ramps	16,200	14,916	0.921	**E**	218	15,134	0.934	**E**	0.013	**Yes**
Floyd Smith Drive										
Joe Crosson to Bradley Ave.	4,500	586	0.130	C	352	1,281	0.285	C	0.154	No
Joe Crosson Drive										
Floyd Smith Dr. to Airport Dr.	4,500	993	0.221	C	704	1,475	0.328	C	0.107	No
Johnson Avenue										
Floyd Smith Dr. to Bradley Ave.	4,500	656	0.146	C	352	443	0.098	C	-0.047	No
Bradley Ave. to Vernon Way	34,200	5,487	0.160	A	281	5,768	0.169	A	0.008	No
Magnolia Avenue										
Kenney St. to Airport Dr.	16,200	9,581	0.591	D	239	9,820	0.606	D	0.015	No
Airport Dr. to Denny Way	16,200	8,410	0.519	D	239	9,239	0.570	D	0.051	No
Denney Way. to Bradley Ave.	34,200	14,116	0.413	B	239	14,945	0.437	B	0.024	No
Pioneer Way										
Bradley Ave. to Cypress Ln.	34,200	4,451	0.130	A	14	4,465	0.131	A	0.000	No
Wing Avenue										
Bradley Ave. to Airport Dr.	4,500	1,446	0.321	C	478	2,242	0.498	C	0.177	No

Notes:

Daily Volume is a 24-hour volume.
V/C = Volume over Capacity.
Change in V/C subject to +0.001 rounding.
NA: Not applicable because Airport Drive will be closed as part of the project.

Table 2.3-2. Existing + Proposed Project Intersection Impacts

Intersection and Control[1]	Peak Hour	Existing		Existing + Proposed Project			
		Delay[2]	LOS	Delay[2]	LOS	Delta[3]	Project Impact?
Bradley Ave. at Johnson Ave. (S)	AM	9.8	A	10.1	B	0.3	No
	PM	10.3	B	10.4	B	0.1	No
Bradley Ave. at Pioneer Way (S)	AM	9.1	A	9.1	A	0.0	No
	PM	9.6	A	9.7	A	0.1	No
Bradley Ave. at Wing Ave. (U)	AM	12.0	B	12.4	B	0.4	No
	PM	11.4	B	12.2	B	0.8	No
Bradley Ave. at Magnolia Ave. (S)	AM	25.4	C	27.1	C	1.7	No
	PM	38.7	D	47.7	D	9.0	No
Bradley Ave. at SR-67 SB Ramps (S)	AM	30.6	C	31.3	C	0.7	No
	PM	34.0	C	35.4	D	1.4	No
Caltrans ILV	AM	1,358	Un	1,370	Un	NA	NA
Caltrans ILV	PM	1,566	Cap	1,582	Cap	NA	NA
Bradley Ave. at SR-67 NB Ramps (S)	AM	36.6	D	37.6	D	1.0	No
	PM	61.3	**E**	66.8	**E**	5.5	**Yes**
Caltrans ILV	AM	1,358	Un	1,370	Un	NA	NA
Caltrans ILV	PM	1,566	Cap	1,582	Cap	NA	NA
Joe Crosson Dr. at Floyd Smith Dr. (U)	AM	8.6	A	9.2	A	0.6	No
	PM	8.9	A	9.4	A	0.5	No
Airport Dr. at Wing Ave (U)	AM	8.5	A	NA	NA	NA	NA
	PM	8.8	A	NA	NA	NA	NA
Airport Dr. at Magnolia Ave. (U)	AM	12.3	B	12.2	B	-0.1	No
	PM	18.6	C	16.9	C	-1.7	No
Bradley Ave, at Cuyamaca St, (S)	AM	14.6	B	14.8	B	0.2	No
	PM	11.4	B	11.5	B	0.1	No
Bradley Ave, at Marshall Ave, (S)	AM	15.4	B	15.5	B	0.1	No
	PM	16.0	B	16.2	B	0.2	No

Notes:

[1] Intersection Control:
S: Signalized
U: Unsignalized

[2] Delay shown in seconds or ILV value shown.

[3] Delta is the increase in delay from the project.

Un: Unstable
Cap: At Capacity

Table 2.3-3. Existing + Cumulative + Proposed Project Segment Impacts

Segment	LOS E Capacity	Existing			Cumulative Daily Vol	Project Daily Volume	Existing + Cumulative + Proposed Project				
		Daily Volume	V/C	LOS			Daily Volume	V/C	LOS	Change in V/C	Cumulative Impact?
Airport Drive											
Joe Crosson Dr. to Wing Ave.	4,500	908	0.202	C	0	0	NA	NA	NA	NA	NA
Wing Ave. to Magnolia Ave.	4,500	1,172	0.260	C	0	225	807	0.179	C	-0.081	No
Bradley Avenue											
Cuyamaca St, to Marshall Ave,	37,000	4,526	0.122	A	449	338	5,313	0.144	A	0.022	No
Marshall Ave. to Johnson Ave.	37,000	7,393	0.200	A	392	422	8,207	0.222	A	0.022	No
Johnson Ave. to Pioneer/Floyd Smith	37,000	8,487	0.229	A	289	352	9,693	0.262	A	0.033	No
Floyd Smith/Pioneer to Wing Ave.	37,000	11,190	0.302	A	284	689	13,071	0.353	A	0.051	No
Wing Ave. to Magnolia Ave.	37,000	11,599	0.313	A	251	464	12,904	0.349	A	0.036	No
Magnolia Ave. to SR-67 SB Ramps	34,200	18,125	0.530	B	173	295	18,593	0.544	B	0.014	No
SR-67 SB Ramps to SR-67 NB Ramps	16,200	14,916	0.921	**E**	204	218	15,338	0.947	**E**	0.015	**Yes**
Floyd Smith Drive											
Joe Crosson to Bradley Ave,	4,500	586	0.130	C	0	352	1,281	0.285	C	0.155	No
Joe Crosson Drive											
Floyd Smith Dr. to Airport Dr.	4,500	993	0.221	C	0	704	1,475	0.328	C	0.107	No
Johnson Avenue											
Floyd Smith Dr. to Bradley Ave.	4,500	656	0.146	C	0	352	443	0.098	C	-0.048	No
Bradley Ave. to Vernon Way	34,200	5,487	0.160	A	120	281	5,888	0.172	A	0.012	No

Table 2.3-3. Existing + Cumulative + Proposed Project Segment Impacts

Segment	LOS E Capacity	Existing			Cumulative Daily Vol	Project Daily Volume	Existing + Cumulative + Proposed Project				
		Daily Volume	V/C	LOS			Daily Volume	V/C	LOS	Change in V/C	Cumulative Impact?
Magnolia Avenue											
Kenney St. to Airport Dr.	16,200	9,581	0.591	D	370	239	10,190	0.629	D	0.038	No
Airport Dr. to Denny Way	16,200	8,410	0.519	D	370	239	9,609	0.593	D	0.074	No
Denny Way to Bradley Ave.	34,200	14,116	0.413	B	370	239	15,315	0.448	B	0.035	No
Pioneer Way											
Bradley Ave to Cypress Ln.	34,200	4,451	0.130	A	64	14	4,529	0.132	A	0.002	No
Wing Avenue											
Bradley Ave. to Airport Dr.	4,500	1,446	0.321	C	0	478	2,242	0.498	C	0.177	No

Notes:

Daily Volume is a 24-hour volume.
V/C = Volume over Capacity.
Change in V/C subject to +0.001 rounding.
NA: Not applicable because Airport Drive will be closed as part of the project.

Table 2.3-4. Existing + Cumulative + Proposed Project Intersection Impacts

Intersection and Control[1]	Peak Hour	Existing		Existing + Cumulative + Proposed Project			
		Delay[2]	LOS	Delay[2]	LOS	Delta[3]	Cumulative Impact?
Bradley Ave. at Johnson Ave. (S)	AM	9.8	A	10.4	B	0.6	No
	PM	10.3	B	10.7	B	0.4	No
Bradley Ave. at Pioneer Way (S)	AM	9.1	A	9.2	A	0.1	No
	PM	9.6	A	9.9	A	0.3	No
Bradley Ave. at Wing Ave. (U)	AM	12.0	B	12.5	B	0.5	No
	PM	11.4	B	12.3	B	0.9	No
Bradley Ave. at Magnolia Dr. (S)	AM	25.4	C	27.9	C	2.5	No
	PM	38.7	D	49.4	D	10.7	No
Bradley Ave. at SR-67 SB Ramps (S)	AM	30.6	C	32.6	C	2.0	No
	PM	34.0	C	36.5	D	2.5	No
Caltrans ILV	AM	1,358	Un	1,386	Un	NA	NA
Caltrans ILV	PM	1,566	Cap	1,605	Cap	NA	NA
Bradley Ave. at SR-67 NB Ramps (S)	AM	36.6	D	38.9	D	2.3	No
	PM	61.3	**E**	70.9	**E**	9.6	**Yes**
Caltrans ILV	AM	1,358	Un	1,386	Un	NA	NA
Caltrans ILV	PM	1,566	Cap	1,605	Cap	NA	NA
Joe Crosson Dr. at Floyd Smith Dr.(U)	AM	8.6	A	9.2	A	0.6	No
	PM	8.9	A	9.4	A	0.5	No
Airport Dr. at Wing Ave. (U)	AM	8.5	A	NA	NA	NA	No
	PM	8.8	A	NA	NA	NA	No
Airport Dr. at Magnolia Ave. (U)	AM	12.3	B	12.5	B	0.2	No
	PM	18.6	C	17.6	C	-1.0	No
Bradley Ave. at Cuyamaca St. (S)	AM	14.6	B	15.2	B	0.6	No
	PM	11.4	B	12.2	B	0.8	No
Bradley Ave. at Marshall Ave. (S)	AM	15.4	B	16.6	B	1.2	No
	PM	16.0	B	18.3	B	2.3	No

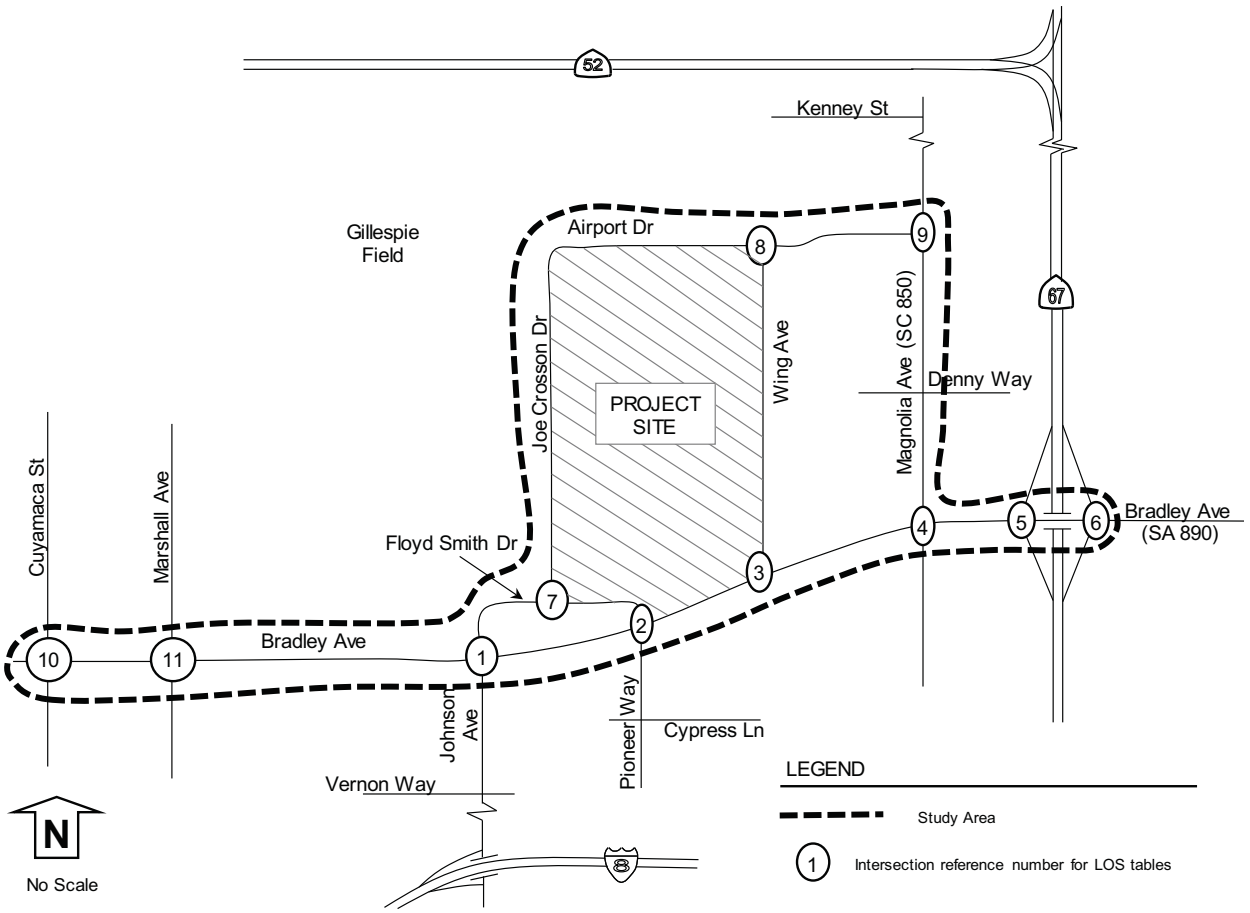
Notes:

[1] Intersection Control:
S: Signalized
U: Unsignalized

[2] Delay shown in seconds or ILV value shown.

[3] Delta is the increase in delay from the project and other cumulative projects.

Un: Unstable
Cap: At Capacity



Traffic Study Area

Figure 2.3-1

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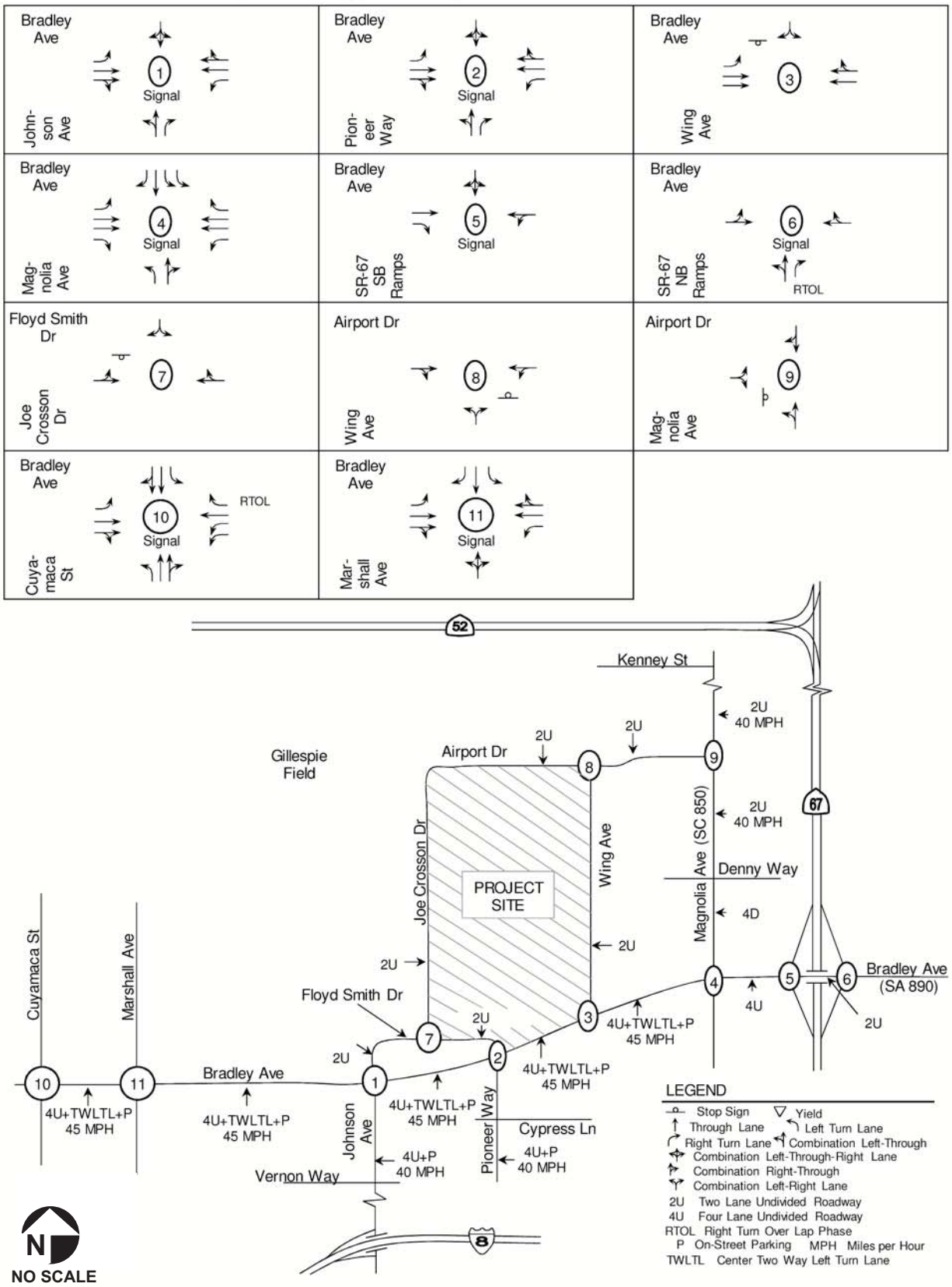

SOURCE: LOS Engineering, Inc., 2011

FIGURE

2.3-2

Existing Roadway Conditions

GRAPHICS/Planning/GillespieField/ExistingRoadConditions_v2.fh8

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CHAPTER 3 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the EIR Process

Effects identified as potentially significant during the initial study or NOP process that were found not to be significant after further analysis in the PEIR include the following resource areas: aesthetics and visual quality, air quality, cultural resources, greenhouse gases, hydrology and water quality, land use and planning, noise, public services, and utilities and service systems.

3.1.1 Aesthetics and Visual Quality

This section considers impacts on aesthetics and visual quality and potential effects to the visual character of the community that may result from project implementation.

3.1.1.1 Existing Conditions

The County-owned Gillespie Field is located in the City of El Cajon approximately 13 miles northeast of downtown San Diego and borders the City of Santee. Gillespie Field is generally bounded by Prospect Avenue and Kenney Street to the north, Magnolia Avenue to the east, Bradley Avenue to the south, and Cuyamaca Street to the west.

Gillespie Field Property

Most of the 757-acre Gillespie Field property (including the 70-acre site) is flat, with slopes of less than 15 percent and elevations ranging from 300 to 399 feet above mean sea level (AMSL). The existing airport property is primarily used for aviation-related activities and supports three asphalt runways, four asphalt taxiways, helicopter operating areas, an airport traffic control tower, terminal/administration buildings, aircraft parking aprons, aircraft storage spaces, aircraft hangars, as well as other buildings housing private companies and support facilities. Gillespie Field also includes industrial parks that make up a substantial portion of the airport property. Airport facilities include a Visual Approach Slope Indicator, which consists of two light bars located on the left side of the runway that can be seen for 3 to 5 miles during the day and up to 20 miles at night; a Precision Approach Path Indicator, which consists of a row of two to four light units located perpendicular to the runway; and a rotating beacon located on top of the air traffic control tower.

The 70-acre Proposed Project site, located within the southeastern portion of the 757-acre airport property, was previously the site of the Cajon Speedway. Currently, the site is undeveloped, vacant, and graded. The Proposed Project site supports a population of San Diego ambrosia within and adjacent to an existing 1.1-acre ecological preserve that is currently fenced off from the remainder of the site. A paved lot is also located in the southwestern portion of the Proposed Project site.

The Proposed Project site is visible from adjacent residential and business parcels as well as from adjacent roadways (Figure 3.1.1-1). However, due to the flat topography and surrounding urban development, direct views of the Proposed Project site are either not provided or are partially obscured from areas farther away from the airport (e.g., from SR-67, Magnolia Avenue,

and Bradley Avenue). To viewers from adjacent properties, the Proposed Project site appears as a large undeveloped and primarily unvegetated lot. From within the 70-acre site, the viewer can see large industrial and office buildings to the south; airport hangars, aprons, and runways to the west and north; and urban/developed areas to the east. Farther to the north, past the runway, large office and airport use buildings can be seen, and farther to the east, State Route 67 (SR-67) and adjacent residential development are visible. There are no parks or scenic highways in the vicinity of the Proposed Project site.

Regulatory Environment
The following section provides the relevant regulation associated with aesthetics.

County of San Diego General Plan

The general plan provides guidance for the preservation of aesthetic resources and incorporates specific community plans that include goals, policies, and recommendations to guide development of a region. These community plans identify a variety of specific planning considerations, which may include guidelines for protecting visual character and quality through development guidelines designed to minimize adverse aesthetic effects.

3.1.1.2 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for visual resources are based specifically on criteria provided in the County's *Guidelines for Determining Significance to Visual Resources* (County 2007c). These Guidelines were adapted from Appendix G of the CEQA Guidelines and developed using the best available information, with input from experts and the public. A significant impact would result if any of the following would occur:

1. The project would introduce 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 or by being inconsistent with applicable design guidelines.
2. The project would result in removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including, but not limited to, landmarks (designated), historic resources, trees, and rock outcroppings.
3. The project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a:
    - public road,
    - trail within an adopted County or state trail system,
    - scenic vista or highway, or
    - recreational area.
4. The project would not comply with applicable goals, policies, or requirements of an applicable County community plan, a subregional plan, or historic district zoning.

3.1.1.3 Visual Character and Visual Quality

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Introduce 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 or by being inconsistent with applicable design guidelines.
- Result in removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including, but not limited to, landmarks (designated), historic resources, trees, and rock outcroppings.

Analysis
The aviation uses proposed on the Proposed Project site would be consistent with those existing on the remainder of Gillespie Field, and industrial-type buildings located adjacent to the site. The redevelopment of the Proposed Project site would be an extension of existing aviation, industrial, and business uses in the immediate area, and the visual effects of the Proposed Project are not likely to contrast with the existing visual landscape. Therefore, changes in visual resources associated with the Proposed Project would be *less than significant*.

3.1.1.4 Scenic Vistas

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from :
    - public road,
    - trail within an adopted County or state trail system,
    - scenic vista or highway, or
    - recreational area.

Analysis
There are no state scenic highways with views to the site, or other scenic resources including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway on the project site. The Proposed Project site contains the San Diego ambrosia mitigation site totaling 1.1 acres, but this is not considered a visual resource. While the project site is within the viewshed of surrounding public and private vantage points, including local roadways and residential areas (Figure 3.1.1-1), the area surrounding the 70-acre site is characterized by aviation, industrial, and commercial uses, similar to the uses proposed as part of the Proposed Project. Structures such as hangars and storage facilities to be built on the 70-acre site would

be consistent with the scale and visual character of the existing uses adjacent to the project site. Therefore, impacts to visual resources would be *less than significant*.

3.1.1.5 Applicable Goals, Policies, or Requirements Compliance

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Not comply with applicable goals, policies, or requirements of an applicable County community plan, a subregional plan, or historic district zoning

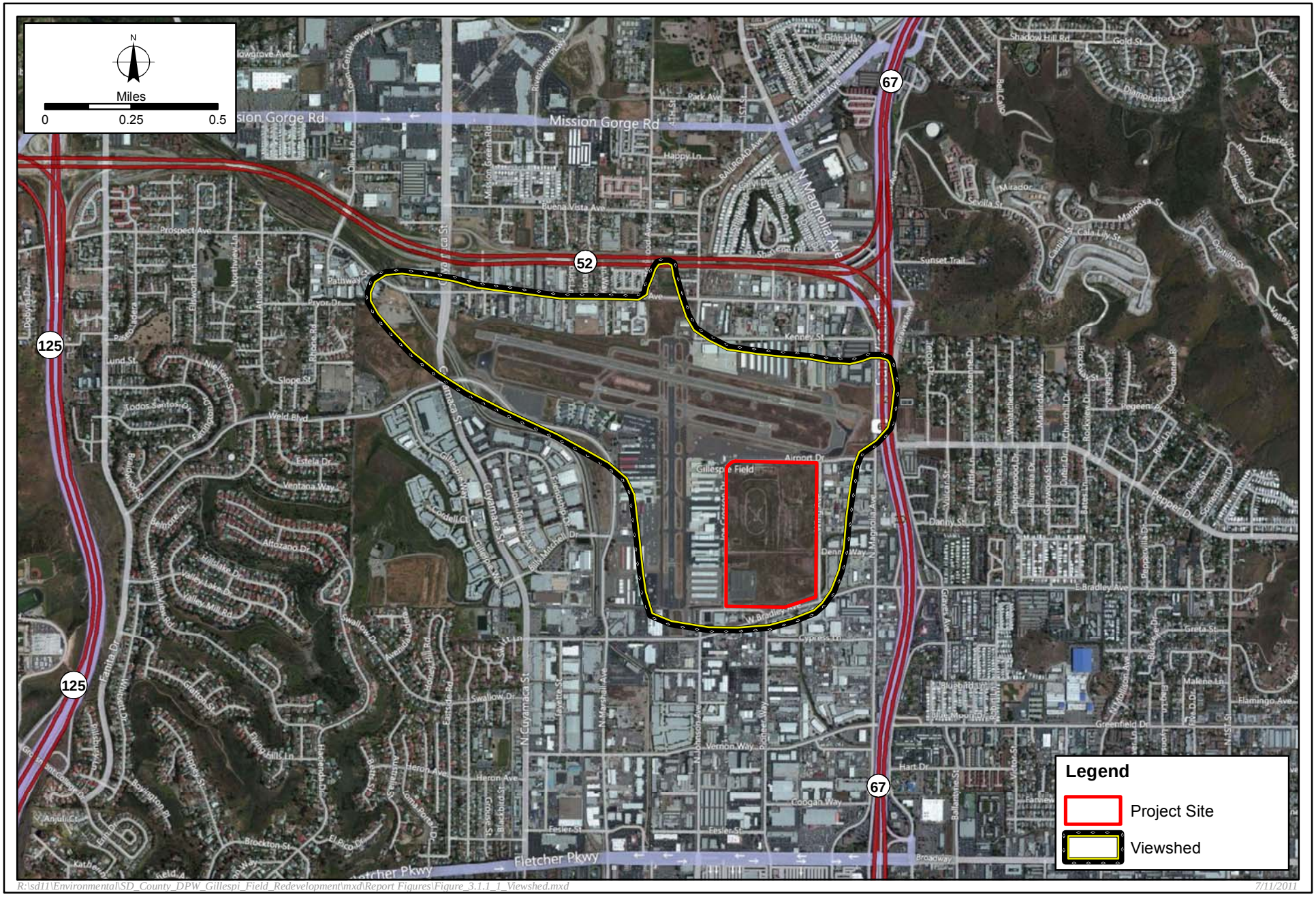
Analysis
The Proposed Project would be consistent with the County of San Diego General Plan. In addition, future private redevelopment of the Proposed Project would be required to comply with the City of El Cajon General Plan requirements. Therefore, the Proposed Project would have no impact.

3.1.1.6 Cumulative Impact Analysis

The redevelopment of the Proposed Project site at Gillespie Field would not have significant visual resources impacts. The proposed uses on the 70-acre site are an extension of the aviation uses currently present on the Gillespie Field property and would not change the general characteristics of the viewshed in the area. The cumulative projects listed in Table 1.2, along with the Proposed Project, would be developed in an area that has been predominantly built out with a mix of commercial, industrial, aviation, and residential uses. Two of the cumulative projects are anticipated to present impacts on visual resources; however, all cumulative project development would be subject to the respective regulations and requirements of the San Diego County General Plan, as well as the City of El Cajon and City of Santee General Plans. Therefore, no significant adverse cumulative impacts on topography or visual resources are anticipated within the cumulative study area.

3.1.1.7 Conclusion

The redevelopment of the Proposed Project site at Gillespie Field would not have significant visual resources impacts. No steep slopes are on the project site, no state scenic highways, no scenic areas or other visual resources protected by open space easements from which the project site could be viewed are present. The Proposed Project would not adversely change the existing visual character of the area, and the project would be consistent with all applicable federal, state, and local statutes or regulations related to visual resources. The Proposed Project would be consistent with the County of San Diego General Plan. In addition, future private development of the Proposed Project site would comply with the City of El Cajon General Plan requirements and FAA regulations. Therefore, there would be no adverse visual impacts.



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amec

Viewshed Map
Gillespie Field Environmental Impact Report
County of San Diego

FIGURE
3.1.1-1

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3.1.2 Air Quality

This section presents information and analysis of potential impacts to air quality and has been compiled based on an Air Quality Technical Report (Air Quality Study) prepared for the Proposed Project by AECOM (AECOM 2011a), which is attached as Appendix B to this PEIR. The analysis also addresses the project's conformity with State Implementation Plans (SIPs) to attain and maintain federal and state standards.

3.1.2.1 Existing Conditions

Climate and Meteorology

The climate of El Cajon, and the entire southern California area, is classified as Mediterranean, and is characterized by cool, dry summers and mild, wet winters. The major influences on the regional climate are the Eastern Pacific High, a strong and persistent high pressure system, and the moderating effects of the Pacific Ocean. Seasonal variations in the position and strength of the high-pressure system are a key factor in the weather changes in the area. The normal mean temperature measured at the El Cajon, California, climatic station from 1979 through 2010 was 65.2°F, with a mean maximum temperature of 77.9°F and a mean minimum temperature of 52.4°F. The normal mean precipitation during the same period was 12.5 inches. Generally, precipitation is lower along the coastline and increases inland toward higher terrain. In southern California, temperatures are generally more extreme inland than along the coast because of the moderating effect of the ocean along the coast. The El Cajon area tends to experience mean maximum temperatures in the high 80°F range in July and August, and to experience mean minimum temperatures in the low 40°F range in December and January. The El Cajon area tends to experience more sunshine than the coastal regions of southern California due to its inland location (AECOM 2011a).

Existing Air Quality Setting

Air quality regulations were first promulgated with the federal Clean Air Act (CAA) of 1970. Air quality is defined by ambient air concentrations of seven specific pollutants identified by the EPA to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are a group of common air pollutants regulated by the federal and state governments by means of ambient standards on the basis of criteria regarding health and/or environmental effects of pollution. These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (including both PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Descriptions of the criteria pollutants and their health effects are included in the Air Quality Study (Appendix B).

Criteria air pollutant concentrations are measured at several monitoring stations in the San Diego Air Basin (SDAB). The closest stations to the Proposed Project site are the El Cajon monitoring station, which measures O_3, PM_{10}, $PM_{2.5}$, and NO_2, and the downtown San Diego monitoring station, which is the only station in the vicinity of the project that measures CO. Table 3.1.2-1 summarizes the air quality data from these stations for the most recent 3 years, 2008 through 2010.

Both the California Air Resources Board (CARB) and the EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The SDAB currently meets the national standards for all criteria pollutants except for ozone and meets state standards for all criteria pollutants except O_3, PM_{10}, and $PM_{2.5}$. On April 15, 2004, EPA issued the initial designations for the 8-hour O_3 standard, and the SDAB is classified as "basic" nonattainment. "Basic" is the least severe of the six degrees of O_3 nonattainment. The San Diego Air Pollution Control District (SDAPCD) submitted an air quality plan to EPA in 2007; the plan demonstrated how the 8-hour O_3 standard will be attained by 2009. However, EPA was challenged on their justification for "basic" designations and, in January 2009, published proposed reclassifications for all "basic" nonattainment areas for which the SDAB would be considered "moderate" nonattainment. Adoption of the new designations was anticipated in late 2009 and would require SDAPCD to reevaluate their Ozone Attainment Plan to ensure compliance with the attainment demonstration requirements for "moderate" nonattainment areas. Therefore, the previous 2007 8-Hour Ozone Attainment Plan is not expected to be approved by EPA.

In addition, the SDAB is currently classified as a "serious" O_3 nonattainment area under state standards. For PM_{10} and $PM_{2.5}$, the SDAB is currently classified as a state nonattainment area. The SDAB currently falls under a national "maintenance plan" for CO, following a 1998 redesignation as a CO attainment area. As of June 2011, no changes have been made to the information above.

Toxic air contaminants (TACs) are a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the "criteria" pollutants previously discussed in that ambient air quality standards have not been established for them. Under certain conditions, toxic air pollutants may cause adverse health effects, including increased risk of cancer and/or acute and chronic noncancerous effects.

CARB identified diesel particulate matter (diesel PM) as a TAC in 1998 based on its potential to cause cancer, premature death, and other health problems. Diesel exhaust contains a variety of harmful gases and more than 40 other cancer-causing substances. Particulate matter from diesel-fueled engines, both mobile and stationary, is responsible for most of the airborne cancer risk from TACs in California. It is estimated that more than 70 percent of the known risk from air toxics today result from diesel PM (AECOM 2011a).

3.1.2.2 Regulatory Setting

Federal and State Regulations and Programs

The CAA (U.S. Code Section 7401) requires the adoption of the National Ambient Air Quality Standards to protect public health, safety, and welfare from known or anticipated effects of air pollution. The CAA also requires the EPA to periodically review the standards to ensure that they provide adequate health and environmental protection and to update those standards as necessary. Current standards are set for sulfur dioxide (SO_2), CO, NO_2, O_3, PM_{10}, $PM_{2.5}$, and Pb. These pollutants are collectively referred to as criteria air pollutants. CARB established the California Ambient Air Quality Standards (CAAQS) that are generally more restrictive than the NAAQS. Federal and state standards for criteria pollutants are shown in Table 3.1.2-2.

Regional and Local Regulations and Programs

In the County, SDAPCD is the agency responsible for protecting the public health and welfare through the administration of federal and state air quality laws and policies. Included in SDAPCD's tasks are the monitoring of air pollution, the preparation of the County's portion of the SIP, and the promulgation of Rules and Regulations. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the County; this list of strategies is called the San Diego Regional Air Quality Strategy (RAQS). The rules and regulations include procedures and requirements to control the emission of pollutants and prevent significant impacts.

3.1.2.3 Analysis of Project Effects and Determination of Significance

The following significance thresholds for air quality impacts are based on criteria provided in Appendix G of the CEQA Guidelines, *County Guidelines for Determining Significance* (County 2007a), and *County Screening Level Thresholds for Air Quality* (Table 3.1.2-3). These guidelines will be used to determine if the project is in compliance with federal, state, and local guidelines. A significant impact to air quality would result if the project would:

1. Conflict with or obstruct the implementation of the San Diego Regional Air Quality Strategy (RAQS) and/or applicable portions of the State Implementation Plan (SIP).
2. Result in emissions that exceed 250 pounds per day of oxides of nitrogen (NO_X) or 75 pounds per day of volatile organic compounds (VOCs).
3. Result in emissions of CO that when totaled with the ambient air concentrations would exceed a 1-hour concentration of 20 parts per million (ppm) or an 8-hour average of 9 ppm.
4. Result in emissions of $PM_{2.5}$ that exceed 55 pounds per day.
5. Result in emissions of PM_{10} that exceed 100 pounds per day and increase the ambient PM_{10} concentration by 5 micrograms per cubic meter ($\mu g/m^3$) or greater at the maximum exposed individual.

6. Have a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs and, because of this direct impact, it would also have a significant cumulatively considerable net increase.
7. 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 Proposed Projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines.
8. Not conform to the RAQS and/or have a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs, and have a significant cumulatively considerable net increase.
9. Cause roadway intersections or segments to operate at or below LOSE and create a CO hotspot and a cumulatively considerable net increase of CO.
10. Place sensitive receptors near CO hotspots or create CO hotspots near sensitive receptors.
11. Result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology or result in a health hazard index greater than one.
12. Either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

The potential for air quality impacts resulting from greenhouse gas (GHG) emissions is addressed in Section 3.1.4 of this PEIR based on significance thresholds recommended by the State Office of Planning and Research (OPR) and interim County DPW guidelines.

3.1.2.4 Conformance to the Regional Air Quality Strategy

Guideline for the Determination of Significance
A significant impact to air quality would occur if the project would:

- Conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

Analysis
The RAQS rely on information from CARB and SANDAG to project future emissions and determine strategies necessary for the reduction of stationary source emissions through regulatory control. The CARB mobile source emissions projections are based on population, vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that are consistent with the growth anticipated by the general plans would be consistent with the RAQS. The Proposed Project site is currently designated as Industrial Park by the City of El Cajon General Plan and zoned for manufacturing. In addition to these land use designations, the City of El Cajon has placed a Special Development Area overlay on the Proposed Project site. The development of aviation uses under the Proposed Project would be consistent with these land use designations. Therefore, emissions of O_3

precursors VOC and NOx would not exceed those anticipated in the RAQS and the Proposed Project would not conflict with the RAQS and San Diego County portion of the SIP. As such, the Proposed Project would have a *less than significant impact*.

3.1.2.5 Conformance to Federal and State Ambient Air Quality Standards

Guidelines for the Determination of Significance
A significant impact to air quality would occur if the project would:

- Result in emissions that exceed 250 pounds per day of NO_X or 75 pounds per day of VOCs.
- Result in emissions of CO that when totaled with the ambient air concentrations would exceed a 1-hour concentration of 20 ppm or an 8-hour average of 9 ppm.
- Result in emissions of $PM_{2.5}$ that exceed 55 pounds per day.
- Result in 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.

SDAPCD has not established screening level thresholds (SLTs) of significance for regional pollutant emissions from development projects. To provide guidance for project analysis under the CEQA, the County has developed SLTs of significance as shown in Table 3.1.2-3 (County 2007a), which are based on the thresholds for requiring an Air Quality Impact Analysis for stationary source permitting. A project with emission rates below these thresholds is considered to have a less than significant effect on regional and local air quality throughout the SDAB. The pounds per day standards apply to the Proposed Project per County recommendation which states that daily SLTs are most appropriate for the standard construction and operational emissions (County 2007a).

It should be noted that O_3, the principal component of smog, is formed in the atmosphere through a series of reactions involving VOC and NO_X in the presence of sunlight. Thus, VOC and NO_X are precursors of O_3 and regulations related to O_3 are aimed at controlling these precursors.

Analysis

Construction Impacts

Construction emissions were calculated using the URBEMIS 2007 program. An estimated construction schedule was used to calculate maximum daily emissions levels that would occur during development of the Proposed Project since project-specific data were not available at the time of the analysis. While private development could commence in 2014, full build-out of the Proposed Project site is estimated to occur in 2019. It was assumed that infrastructure construction would be complete in one year from the commencement of construction activities (estimated to begin in 2013). Although there may be an opportunity for all excavated material to be used on the project site, it was conservatively assumed that 24,000 cubic yards of material would be exported during the grading phase. It was also assumed that 24,000 cubic yards of

concrete and other materials would be imported for construction of taxiways, aprons, and other infrastructure. In order to minimize dust emissions, the project would require that all active grading areas be watered at least twice per day.

Following completion of the infrastructure, there would be development of 55 acres of aviation-related uses over the 2014 to 2019 period. Based on the amount and types of land uses to be developed, the URBEMIS 2007 program uses default assumptions to quantify construction emissions. It was assumed that 800,000 square feet of hangars/warehouse space and 250,000 square feet of shop and office space would be developed at build-out. While development would average approximately 7 to 8 acres per year, the reasonable worst case assumption was made that 15 acres of aircraft facilities would be developed during the year 2014. For purpose of estimating architectural coatings, it was assumed that this development would include a maximum of 50,000 square feet of warehouse, shop, or office space that would be painted.

Maximum daily construction emissions of VOCs, NOx, PM_{10}, and $PM_{2.5}$ are shown in Table 3.1.2-4. Emissions of VOCS, NOx, PM_{10}, and $PM_{2.5}$ would be less than the County significance criteria and, therefore, the impact would be *less than significant*.

Operations Impacts

Aircraft emissions

Aircraft emissions were calculated using the EDMS model. Emissions were forecasted for 2019, the anticipated year when the Proposed Project would be complete. Emissions attributed to the Proposed Project would be the difference between the total emissions with implementation of the Proposed Project and the total emissions without the project, as shown in Table 3.1.2-5.

Area and Mobile Source Emissions

The Proposed Project would generate new area and mobile source emissions. The area source emissions would result from natural gas used for heat and hot water in the new buildings, landscape maintenance, and routine repainting of the buildings. Mobile source emissions would result from additional vehicle trips to and from the Proposed Project site. Area and mobile source emissions were calculated for a 2019 project implementation year using the URBEMIS 2007 model, version 9.2.4. Vehicle trip generation data of 1,407 average daily trips were taken from the project traffic report (LOS 2011). For purposes of calculating area source emissions, it was assumed that, at the build-out of the Proposed Project, there would be 800,000 square feet of hangar/warehouse space and 250,000 square feet of shop and office space. The results are shown in Table 3.1.2-6.

Combined Operations Emissions

In order to evaluate the project's conformity with the SIP and the impact significance, aircraft, area source, and mobile source emissions are combined and compared with applicable thresholds, as shown in Table 3.1.2-6 and Table 3.1.2.7. Emissions of VOCS, NOx, PM_{10}, and $PM_{2.5}$ would be less than the County significance thresholds for operational emissions (Table 3.1.2-6). Therefore, operational impacts would be *less than significant*.

Local CO Emissions

High concentrations of CO emissions may occur in areas of severely congested, high-volume traffic. Severe congestion may occur when signalized intersections operate at LOS E or F. Intersection operations for the Proposed Project were analyzed and it was determined that one signalized intersection would operate at LOS E in both the existing condition and the existing plus project scenario: Bradley Avenue/SR-67 Northbound Ramps (LOS 2011).

The County Guidelines for determining air quality significance indicated that pockets where the CO concentration exceeds the NAAQS and/or CAAQS, called CO "hotspots", have been found to occur only at intersections with peak-hour trips exceeding 3,000 trips (County 2007a). The project intersection analysis for the existing plus project condition forecast a p.m. peak hour volume at the Bradley Avenue/SR-67 Northbound Ramps intersection of 1,582 trips (LOS 2011). Therefore, a CO hotspot would not occur. The Proposed Project would not result in emissions of CO that, when totaled with ambient air concentrations, would exceed a 1 hour concentration of 20 ppm or an 8-hour average of 9 ppm. Therefore, the Proposed Project would have a less *than significant impact*.

3.1.2.6 Cumulatively Considerable Net Increase of Criteria Pollutants

Guidelines for the Determination of Significance of Construction Impacts

A significant impact to air quality would occur if the project would:

- Have a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs and, because of this direct impact, it would also have a significant cumulatively considerable 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 Proposed Projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines.

Analysis

Construction Impacts

Construction emissions of the Proposed Project would not exceed the applicable significance criteria (Table 3.1.2-4). The projects that have been identified in the area of Gillespie Field that may be constructed concurrently with construction of the Proposed Project are generally small projects for the construction of one to four residential units located more than a quarter mile from the project site. Two large potential commercial or industrial developments are located more than a half mile from the project site. The potential for cumulative particulate impacts is negligible. Therefore, cumulative construction impacts would be *less than significant*.

Guidelines for the Determination of Significance of Operational Impacts
A significant impact to air quality would occur if the project would:

- Not conform to the RAQS and/or have a significant direct impact on air quality with regard to operational emissions of PM_{10}, $PM_{2.5}$, NO_X, and/or VOCs, and have a significant cumulatively considerable net increase.
- Cause roadway intersections or segments to operate at or below an LOS E and create a CO hotspot and a cumulatively considerable net increase of CO.

Analysis

Operational Impacts

The Proposed Project would conform to the RAQS and would not have a direct significant impact with regard to operational emissions of VOCs, NOx, PM_{10}, and $PM_{2.5}$ (Table 3.1.2-6).

The project intersection analysis for the existing plus project condition forecast a PM peak hour volume at the Bradley Avenue/SR-67 Northbound Ramp intersection of 1,582 trips (LOS 2011). The County Guidelines indicate that pocket CO hotspots have been found to occur only at intersections with peak-hour trips exceeding 3,000 trips (County of San Diego 2007a). Therefore, a CO hotspot would not occur. The Proposed Project would not result in emissions of CO that, when totaled with ambient air concentrations, would exceed a 1 hour concentration of 20 ppm or an 8-hour average of 9 ppm. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of pollutants.

3.1.2.7 Impacts to Sensitive Receptors

Sensitive air quality receptors are those places where children, the elderly, or others potentially sensitive to poor air quality are located. Sensitive air quality receptors exist at the residential properties adjacent to the roadway corridor.

Guidelines for the Determination of Significance
A significant impact to air quality would occur if the project would:

- Place sensitive receptors near CO hotspots or create CO hotspots near sensitive receptors.
- Result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology (T-BACT) or result in a health hazard index greater than one.

Analysis

Carbon Monoxide Hotspots

The Proposed Project would not develop land uses that would be occupied by sensitive receptors. Additionally, the above analysis has shown that the Proposed Project would not cause a CO hotspot. Therefore, the Proposed Project would not result in the exposure of sensitive receptors to substantial concentrations of CO. The impact would be *less than significant*.

TAC – Diesel Particulate Matter

Construction

Diesel PM, a TAC, would be emitted during construction due to the operation of heavy equipment at the site. Because diesel PM is considered to be carcinogenic, long-term exposure to diesel exhaust emissions have the potential to result in adverse health impacts. To evaluate whether project construction could pose a significant impact to nearby sensitive receptors, a health risk evaluation of diesel PM was conducted (AECOM 2011a).The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure which is defined in the California Office of Environmental Health Hazard Assessment guidelines, *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, as 24 hours per day, 7 days per week, 365 days per year, for 70 years.

The modeling analysis demonstrated that the maximum excess cancer risk predicted would be 3.70 in 1 million. This value is 2.70 in 1 million above the County of San Diego's significance threshold of 1 in 1 million without application of Toxic Best Available Technology (T-BACT). The significance threshold was developed from SDAPCD Rules 1200 and 1210. These rules allow a carcinogenic risk up to 10 in 1 million with the application of T-BACT.

The definition of T-BACT allows for the consideration of environmental, energy, and economic (i.e., cost effectiveness) considerations when determining what technologies would be required for control of TAC emissions. The County recommends consideration of alternative diesel fuels and diesel particulate filters as T-BACT. The project will utilize low-sulfur fuels during construction per the requirements implemented by the CARB for 15 ppm sulfur diesel. With use of low-sulfur diesel fuel and idling restrictions to limit idling to less than 15 minutes except as required for startup and midday engine checks, the project would comply with T-BACT, and the risk would be below the County's significance threshold of 1 in 1 million with application of T-BACT. Actual risks are likely to be lower than predicted from the health risk evaluation because construction may require less than one year overall to complete, or individual construction projects may be completed over a longer period of time but with less equipment and emissions required. Therefore, it is determined that the health risk from construction diesel PM emissions would *be less than significant*.

Operations

The health risk assessment includes a quantitative evaluation of the potential risks associated with exposure to diesel particulate emissions generated by vehicles from the Proposed Project. The maximum excess cancer risk associated with exposure to diesel PM from project-generated trips was estimated to be 0.692 in 1 million, which is below the San Diego County significance threshold of 1 in 1 million without T-BACT. The maximum non-cancer chronic hazard index was 0.000435, which is below the San Diego County significance threshold of 1.0. Therefore, the project would not result in a significant risk from operational TAC emissions.

The Proposed Project would not expose sensitive receptors to substantial concentrations of CO or TACs. Therefore, the Proposed Project's impact would be *less than significant*.

3.1.2.8 Odor Impacts

Guideline for the Determination of Significance

A significant impact to air quality would occur if the project would:

- Either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

Analysis

Construction Impacts

Proposed Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust; however, because the construction equipment would be operating at various locations throughout the construction site, and because any operation near existing receptors would be temporary, impacts associated with odors during construction would be *less than significant*.

Operational Impacts

The Proposed Project does not involve facilities that would cause a significant odor nuisance to receptors during operations, nor would they attract people to an area where there would be a potential for exposure to objectionable odors; therefore, air quality impacts associated with state and local thresholds would be *less than significant.*

Land uses for the project site would include 15 acres of infrastructure and 55 acres of additional aircraft facilities. It was assumed that 800,000 square feet of hangars/warehouse space and 250,000 square feet of shop and office space would be developed at build-out. These uses are consistent with the existing uses within the 757-acre facility. The Proposed Project would not be an odor-producing facility. The Proposed Project would not develop land uses that would be occupied by a considerable number of sensitive receptors. Therefore, there would be *less than significant* odor impacts.

3.1.2.9 Cumulative Impact Analysis

The Proposed Project would combine with other future projects anticipated in the vicinity to increase the amount of pollutant emissions within the SDAB. Because the SDAB is currently in nonattainment of CAAQS for O_3 and PM_{10}, cumulative development has the potential to perpetuate or worsen this excess of standards. However, cumulative development is subject to the plans and control measures presented in the SDAPCD's RAQS, which is updated to incorporate land use projections for the County and other local jurisdictions. Projects that propose new development that is consistent with the growth anticipated in land use plans used in the projections are generally consistent with the RAQS. Any development that is not consistent with the land use plans used to update the RAQS does have the potential to result in significant cumulative air quality impacts. As shown in Table 1.2, there are six cumulative projects identified as resulting in project-level significant air quality impacts. However, all projects identified are expected to implement mitigation measures and/or design considerations in order to comply with SDAPCD's RAQS. In addition, these six cumulative projects comply with the land use plans used to update the RAQS. Therefore, it is concluded that implementation of the Proposed Project would not result in cumulatively significant impacts.

3.1.2.10 Conclusion

Implementation of the Proposed Project would not result in significant impacts to air quality. The Proposed Project conforms to the RAQS and SIP. Therefore, the project would result in a less than significant impact on regional air quality and would not conflict with applicable air quality improvement plans of the County or State. Construction air quality impacts would not exceed the applicable significance criteria, and would have a less than significant impact. In order to minimize dust emissions, the project would require that all active grading areas be watered at least twice per day. In addition, the Proposed Project would not develop land uses that would be occupied by sensitive receptors nor would it be an odor-producing facility. Therefore, potential air quality and odor impacts from the Proposed Project would be *less than significant*.

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Table 3.1.2-1. Ambient Air Quality Summary

Pollutant Standards	2008	2009	2010
Carbon Monoxide (CO) – San Diego Downtown Station			
National maximum 8-hour concentration (ppm)	2.60	2.77	2.17
State maximum 8-hour concentration (ppm)	2.60	2.77	2.17
Number of Days Standard Exceeded			
NAAQS 8-hour (>9.0 ppm)	0	0	0
CAAQS 8-hour (>9.0 ppm)	0	0	0
CAAQS 1-hour (>20.0 ppm)	0	0	0
Nitrogen Dioxide (NO_2) – El Cajon Station			
State maximum 1-hour concentration (ppm)	0.063	0.054	0.058
Annual Average (ppm)	0.016	0.014	0.013
Number of Days Standard Exceeded			
CAAQS 1-hour	0	0	0
Ozone (O_3) – El Cajon Station			
State max 1-hour concentration (ppm)	**0.107**	**0.98**	**0.102**
National maximum 8-hour concentration (ppm)	**0.093**	**0.082**	**0.078**
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	**3**	**2**	**1**
NAAQS 8-hour (>0.075 ppm)	**5**	**2**	**3**
Particulate Matter (PM_{10})[a] – El Cajon Station			
National maximum 24-hour concentration ($\mu g/m^3$)	40.2	55.0	41.0
State maximum 24-hour concentration ($\mu g/m^3$)	41.4	**57.0**	42.0
State annual average concentration ($\mu g/m^3$)	**27.3**	**25.3**	**21.3**
Estimated Number of Days Standard Exceeded			
NAAQS 24-hour (>150 $\mu g/m^3$)	0	0	0
CAAQS 24-hour (>50 $\mu g/m^3$)	0	**6**	0
Particulate Matter ($PM_{2.5}$)[a] – El Cajon Station			
National maximum 24-hour concentration ($\mu g/m^3$)	30.7	56.5	27.7
State maximum 24-hour concentration ($\mu g/m^3$)	38.5	56.5	41.0
National annual average concentration ($\mu g/m^3$)	13.3	12.1	10.8
State annual average concentration ($\mu g/m^3$)	**14.9**	12.2	10.8
Estimated Number of Days Standard Exceeded			
NAAQS 24-hour (>65 $\mu g/m^3$)	0.0	**3.1**	0.0

Notes:

[a] State and national statistics may differ for the following reasons: State statistics are based on California-approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State statistics are based on *local* conditions; national statistics are based on *standard* conditions. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter, **bold indicates a standard exceedance**

Source: AECOM 2011a

Table 3.1.2-2. California and National Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[a,c]	Federal Standards[b]	
			Primary[c,e]	Secondary[c,f]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	–	Same as Primary
	8 Hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	
Suspended Particulate Matter (PM_{10})[h]	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM[f]	20 µg/m^3	–	
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	–	35 µg/m^3	Same as Primary
	AAM[f]	12 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen Dioxide (NO_2)	AAM[f]	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm	
Sulfur Dioxide (SO_2)	AAM[f]	–	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 (1,300 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)	–	–
Lead (Pb)[g]	30 day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month average	–	0.15 µg/m^3	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 1 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates (SO_4)	24 Hour	25 µg/m^3		
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride[g]	24 Hour	0.01 ppm (26 µg/m^3)		

Notes:

[a] California standards for O_3, CO (except Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM10, PM2.5, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National standards (other than O_3, PM10, PM2.5, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.

[c] Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] Annual Arithmetic Mean

[g] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

–: No Standard; ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter; mg/m^3: milligrams per cubic meter.
Source: AECOM 2011a

Table 3.1.2-3. Regional Pollutant Emissions – Screening Level Thresholds of Significance

Pollutant	Total Emissions		
	Pounds per Hour	Pounds per Day	Tons per Year
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter	---	55*	10*
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (Sox)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOCs)	---	75**	13.7***

Notes:

* EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the SCAQMD.

** Threshold for VOCs based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley.

*** 13.7 Tons Per Year threshold based on 75/lbs/day multiplied by 365 days/year and divided by 2000 lbs/ton.
Source: AECOM 2011a

Table 3.1.2-4. Project Construction – Maximum Daily Emissions

Construction Phase	Pollutant Emissions, pounds per day			
	VOC	NOx	PM10	PM2.5
Infrastructure development on 15 acres (2013)	9	75	44	12
Aviation use development on 55 acres (2014)	9	63	33	8
County Significance Threshold	*75*	*250*	*100*	*55*
Exceeds Threshold?	No	No	No	No

Source: AECOM 2011a

Table 3.1.2-5. Aircraft Emissions (2019 Forecast)

Scenario	Aircraft emissions – tons per year				
	VOC	NOx	CO	PM10	PM2.5
Proposed Project	31	10	2,569	0.2	0.2
No Project Alternative	28	10	2,367	0.2	0.2
Difference = Project Emissions	3	>1	202	<0.01	<0.01
	Aircraft emissions – pounds per day				
Project Emissions	8	2	1,107	<0.1	<0.1

Source: AECOM 2011a

Table 3.1.2-6. Area and Mobile Source Emissions (2019)

Scenario	Area and mobile source emissions – tons per year				
	VOC	NOx	CO	PM10	PM2.5
Area sources	1.2	0.3	0.8	<0.01	<0.01
Mobile sources	1.9	1.7	13.7	4.2	0.8
Total area and mobile source emissions	3.1	2.0	14.5	4.2	0.8
	Area and mobile source emissions – pounds per day				
Area sources	7	2	4	<1	<1
Mobile sources	11	10	76	23	5
Total area and mobile source emissions	18	12	81	23	5

Notes:
Area and mobile source emissions differ between summer and winter; value shown is the higher seasonal value for each pollutant.
Totals may not add due to rounding.
Source: AECOM 2011a

Table 3.1.2-7. Project Operations Maximum Daily Emissions (2019 Forecast)

Emission Source	Pollutant Emissions, pounds per day			
	VOC	NOx	PM10	PM2.5
Aircraft emissions	8	2	<0.1	<0.1
Area and mobile source emissions	18	12	23	5
Total operations emissions	26	14	23	5
County Significance Threshold	*75*	*250*	*100*	*55*
Exceeds Threshold?	No	No	No	No

Notes: Source: AECOM 2011a

3.1.3 Cultural Resources

The information in this section considers potential impacts to cultural resources. The information and analysis in this section have been compiled based on the Cultural Resources Technical Report prepared for the project by ASM Affiliates (ASM 2007). The Cultural Resources Report is provided as Appendix D of this PEIR. Cultural resources are defined as prehistoric and historic sites, districts, or any other physical evidence of human activity considered significant to a culture, subculture, or a community for scientific, traditional, religious, or other reasons. Factors determining a resource's significance are its integrity, design, associations with important events or persons, and age.

3.1.3.1 Existing Conditions

Regulatory Environment

The regulatory framework and methods for determining impacts to cultural resources associated with the Proposed Project include compliance with the requirements of CEQA as defined in Section 15064.5 of the CEQA Guidelines and with County of San Diego *Guidelines for Determining Significance to Cultural Resources: Archaeological and Historic Resources* (County 2007b). Both sets of guidelines require the identification of cultural resources that could be affected by the Proposed Project, the evaluation of the significance of such resources, an assessment of the Proposed Project impacts on significant resources, and development of a research design and data recovery program to avoid or address adverse effects to significant resources.

Background

Records Search

A records search was conducted at the South Coastal Information Center (SCIC), at San Diego State University, and at the San Diego Museum of Man (MOM). The search encompassed the Proposed Project site and a one-mile radius around the site. Letters from the SCIC and MOM are included in Attachment A of the Cultural Resources Report, which is provided as Appendix D to this PEIR. Site records on file at both the SCIC and MOM indicate that no previously recorded cultural resources are located within the Proposed Project site; however, more than 12 cultural resources are recorded within a one-mile radius of the site (Table 3.1.3-1). The records search also indicated that the Proposed Project site had not been previously surveyed.

Archival Research and Historical Background

ASM conducted archival research at the San Diego Historical Society Research Archives, the County DPLU, and the City of Santee and City of El Cajon Historical Societies.

Aerial photographs from 1928, 1945, 1966, and 1983 on file at the County Cartographic Records Section produced a detailed record of physical development in the project area. The photos demonstrate that prior to World War II, the project area was part of a broad agricultural

area characterized by farms and grazing lands. Substantial development of the area began in 1942, when Gillespie Field was commissioned as a U.S. Marine Corps parachute training area.

The Cajon Speedway operated for 44 years within the 70-acre site. In 1961, the facility began operation with a 1/4-mile dirt racetrack. By 1970, the track had been enlarged to 3/8 mile and paved. By the time the track closed in 2004, more than four million patrons had attended more than 1,300 race events. The speedway facility was demolished in 2005.

Field Survey Methods and Results

The Proposed Project site was surveyed April 10-13, 2006, and May 24, 2007. No buildings or structures were present on the Proposed Project site and no archaeological resources were found during the field surveys.

Native American Consultation

The California Native American Heritage Commission (NAHC) conducted a search of their files for any recorded traditional cultural properties or Native American heritage sites within one mile of the Proposed Project site. The NAHC search found no traditional cultural properties or Native American heritage sites within the search area. The NAHC provided a list of Native American tribal representatives to solicit further information concerning the Proposed Project. Letters were sent to eight tribal representatives requesting further information. Only one response, a letter dated April 18, 2006, from Ms. Shasta Gaughen, Assistant Director for the Pala Band of Mission Indians, has been received. The letter suggested that a "project of this size would benefit from the presence of Native American monitors." On August 16, 2006, a letter was sent in response to Ms. Gaughen stating that, due to the extremely high level of disturbance on-site and the fact that neither the records search nor the survey resulted in the identification of cultural resources, the likelihood of identifying unknown prehistoric or historic archaeological deposits is extremely low and does not warrant Native American or archaeological monitoring. Native American Consultation letters are included with the Cultural Resources Report as Appendix D to this PEIR.

3.1.3.2 Analysis of Project Effects and Determination as to Significance

The significance thresholds for cultural resources are based specifically on criteria provided in the County's Guidelines for Determining Significance for Cultural Resources (County of San Diego 2007b), which were adapted from Appendix G of the CEQA Guidelines and developed using best available information, with input from experts and the public.

A significant impact to cultural resources would result if any of the following would occur:

1. The project causes a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior's Standards.

2. The project causes a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines. 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.
3. The project disturbs any human remains, including those interred outside of formal cemeteries.
4. The project proposes activities or uses damaging to significant cultural resources as defined by the County RPO and fails to preserve those resources.

3.1.3.3 Historical Resources

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5 of the CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that causes it to be significant in a manner not consistent with the Secretary of Interior's Standards.

Analysis
A records search was conducted at the SCIC at San Diego State University, and at the MOM. In addition, archival and historical research was performed, as well as a field survey of the Proposed Project site. No previously recorded historic resources were found within the site (ASM 2007). In addition, no resources with the potential for meeting the criteria of eligibility for listing in the California Register of Historical Resources (CPRC §5024.1) are present within the Proposed Project site.

Due to the fact that no historical resources as defined by Section 15064.5 of the State CEQA Guidelines were detected or are known to exist on the site, there would be *no impact* to historical resources.

3.1.3.4 Archaeological Resources

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the State CEQA Guidelines. 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.

Analysis
No unique archaeological resources, as defined by Section 15064.5 of the State CEQA Guidelines were identified within the Proposed Project site (ASM 2007). Therefore, the Proposed Project would have *no impact* on archaeological resources.

3.1.3.5 Disturbance to Human Remains

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Disturb any human remains, including those interred outside of formal cemeteries.

Analysis
No cultural resources as defined by Section 15064.5 of the State CEQA Guidelines were detected or are known to exist on the site; therefore the Proposed Project is not anticipated to disturb any human remains.

3.1.3.6 Damage to County RPO-defined Significant Cultural Resources

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

Proposes activities or uses damaging to significant cultural resources as defined by the County RPO and fails to preserve those resources.

Analysis
No cultural resources as defined by the County RPO were detected or known to exist on the Proposed Project site; therefore, the Proposed Project would have *no impact* on RPO-defined significant cultural resources.

3.1.3.7 Cumulative Impact Analysis

No historic or cultural resources were found within the Proposed Project site. No resources with the potential for meeting the criteria of eligibility for listing in the National Register of Historic Places (36 CFR §60) or the California Register of Historical Resources (CPRC §5024.1) are present within the Proposed Project site. Six projects located within the cumulative study area listed in Table 1.2, and analyzed for this project, were determined to result in significant impacts to historical/cultural resources. However, all cumulative projects listed in Table 1.2 would be subject to state and local regulations regarding the preservation of significant cultural and historic resources. Therefore, a significant cumulative impact to cultural resources would not occur in the cumulative study area. As such, the project is not considered to contribute to a cumulatively considerable impact to historical/cultural resources.

3.1.3.8 Conclusions

Records search and survey results determined that no historical/cultural resources exist on-site. Because no historical/cultural resources were identified or discovered, the Proposed Project would not impact historical/cultural resources.

Table 3.1.3-1. Records Search Results: Recorded Sites within One Mile of the Proposed Project

Site Number	Site Type	Site Size	Date	Recorded By	Artifacts/Features
SDI-141	unknown	unknown	unknown	Treganza	unknown
SDI-4646	unknown	unknown	2/1963	Wakefield	unknown
SDI-5049	milling/midden	110x115 m	6/1979	Oetting	ceramics, flakes, ground stone
SDI-5051	milling	10x15m	6/1979	Oetting	none
SDI-5997	milling/artifacts	unknown	1979	Carrico	311 artifacts/ ceramics, lithics, ground stone
SDI-6936	Lithic scatter	30x2m	2/1979	Carrillo	lithics
SDI-6937	Lithic scatter	45x69m	2/1979	Carrillo	lithics/cores
SDI-6939	milling/artifacts	54x36m	2/1979	Carrillo	lithics, ceramics, shell, point
SDI-6940	midden	3x3m	2/1979	Carrillo	ceramics, lithics
SDI-10451	milling/artifacts	177x44m	9/1985	Cardenas	cores, lithics
SDI-15748	milling/lithics	33x10m	8/2000	Smith	lithics
SDI-16968	milling/artifacts	43x68	5/2004	Smith	ground stone, lithics, ceramics

Source: ASM Affiliates 2007

3.1.4 Greenhouse Gas Emissions

This section presents information and analysis of potential impacts to climate and has been compiled based on an Air Quality Technical Report (Air Quality Study) prepared for the Proposed Project by AECOM (AECOM 2011a), which is attached as Appendix B to this PEIR. The greenhouse gas emissions analysis section of the Air Quality Study was conducted using CEQA Guidelines and the County's *Interim Approach to Addressing Climate Change in CEQA Documents* (County 2010c).

3.1.4.1 Existing Conditions

Global Climate Change Overview

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric GHGs, including water vapor, CO_2, CH_4, and N_2O. These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere.

GCC is currently an important and highly debated environmental, economic, and political issue. Emissions from anthropogenic (caused or produced by humans) activities have elevated the concentrations of GHGs in the atmosphere. The increasing emissions of GHGs have led to a trend of anthropogenic warming of the earth's average temperature, which is causing changes in the earth's climate. Anthropogenic GHG emissions are primarily associated with (1) the burning of fossil fuels during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition. This increasing temperature phenomenon is known as "global warming" and the climatic effect is known as "climate change" or "global climate change."

Climate change is a recorded change in the average weather of the earth measured by variables such as wind patterns, storms, precipitation, and temperature. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. Since the instrumental recording of global surface temperature in 1850, 11 of the 12 years from 1995 to 2006 ranked amongst the warmest years in recorded history. An increase in global surface temperature of 0.74 degrees Celsius (°C) occurred during the 100-year period from 1906 to 2005. Scientific research indicates that the rate and magnitude of current global temperature changes are anthropogenic and that global warming will lead to adverse climate change effects around the globe (IPCC 2007).

Greenhouse Gases

Gases that trap heat in the atmosphere are often called greenhouse gases, analogous to the effects of a greenhouse. The accumulation of GHGs in the atmosphere regulates the Earth's temperature by absorbing most of the infrared radiation that rises from the earth's sun-warmed surface and that would otherwise escape into space. This process is commonly known as the "greenhouse effect". Without the natural GHGs, the Earth's temperature would be about 61°F cooler (AECOM 2011a).

GHGs are emitted by both natural processes and human activities. GHGs, as defined under California's AB 32, include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions of climate change often include water vapor, ozone, and aerosols in the category of greenhouse gases. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry (CCAR), as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, and aerosols is provided.

Anthropogenic emissions of GHGs into the atmosphere enhance the Greenhouse Effect by absorbing the radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing temperature to increase. CO_2 is the most important anthropogenic GHG. Human-caused sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline, and wood). Data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. Concentrations of CO_2 have increased in the atmosphere since the industrial revolution.

GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes ranging from one year to several thousand years. The long atmospheric lifetimes allow for GHGs to disperse around the globe. In addition, the impacts of GHGs are borne globally, as opposed to the localized air quality effects of criteria air pollutants and TACs.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to carbon dioxide. For example, since CH_4 and N_2O are approximately 21 and 310 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310 (CO_2 has a global warming potential of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e.

GHG Emission Inventories

State

The State of California GHG Inventory, prepared by CARB, identified and quantified statewide anthropogenic GHG emissions and sinks. The inventory includes estimates for CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs. The inventory is divided into seven broad sectors and categories in the inventory: Agriculture, Commercial, Electricity Generation, Forestry, Industrial, Residential, and Transportation. When accounting for GHGs, emissions are expressed in terms of CO_2

equivalents (CO_2e), are typically quantified in metric tons (MT) or millions of metric tons (MMT), and are shown as $MMTCO_2e$.

Local

In addition to the State of California GHG Inventory, a more specific regional GHG inventory was prepared in 2008 by the University of San Diego, School of Law's Energy Policy Initiative Center. This detailed San Diego County Greenhouse Gas Inventory (SDCGHGI) takes into account the unique characteristics of the region in calculating emissions (Anders et al 2008). The SDCGHGI calculated GHG emissions for 1990 (29 $MMTCO_2e$), 2006 (34 $MMTCO_2e$), and projected 2020 emissions (43 $MMTCO_2e$). Based on this inventory and the emission projections for the region, the study found that emissions of GHGs must be reduced by 33 percent below business-as-usual levels (43 $MMTCO_2e$) for San Diego County to achieve 1990 emission levels by the year 2020. Business-as-usual emissions are defined as the emissions that would occur in the absence of reductions mandated by AB 32.

Regulatory Setting

The EPA, through its Office of Air and Radiation (OAR), develops national programs, technical policies, and regulations for controlling air pollution and radiation exposure. OAR is concerned with pollution prevention and energy efficiency, indoor and outdoor air quality, industrial air pollution, pollution from vehicles and engines, radon, acid rain, stratospheric ozone depletion, climate change, and radiation protection (EPA 2009).

CARB, part of CalEPA, is responsible for the coordination and administration of both federal and state air pollution control programs in California. California's Legislature established CARB in 1967 to: (1) attain and maintain healthy air quality; (2) conduct research into the causes of and solutions to air pollution; and (3) systematically attack the serious problems caused by motor vehicles, which are a major cause of air pollution in the state (CARB 2009a). CARB began programs to reduce GHG emissions in 2004.

The Proposed Project is located in SDAB. Air quality in the SDAB is regulated by SDAPCD, which is responsible for administering standards and developing rules and regulations governing air emissions in the SDAB. CARB is not involved in issuing permits or specific source regulations, but delegates that authority and oversees SDAPCD. SDAPCD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. SDAPCD prepares plans to attain and maintain ambient air quality standards.

Federal

Although there is currently no federal overarching law or policy related to climate change or the regulation of GHGs, recent activity suggests that regulation may be forthcoming. Foremost among recent developments has been the U.S. Supreme Court's decision in Massachusetts v. EPA, the "Endangerment Finding," and "Cause or Contribute Finding," which are described below. Despite these findings, the future of GHG regulations at the federal level is still uncertain. EPA regulation may be pre-empted by congressional action should a cap and trade bill be

passed prior to adoption of EPA regulation. The following summarizes recent legal cases, legislation, and policies applicable to the Proposed Project.

Massachusetts et al. v. U.S. Environmental Protection Agency (2007)

Twelve U.S. states and cities including California, in conjunction with several environmental organizations, sued to force the EPA to regulate GHGs as a pollutant pursuant to the Clean Air Act (CAA) in Massachusetts et al. v. Environmental Protection Agency 549 US 497 (2007). The court ruled that the plaintiffs had standing to sue, GHGs fit within the CAA's definition of a pollutant, and the EPA's reasons for not regulating GHGs were insufficiently grounded in the CAA.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 mandates a host of actions that would aid in the reduction of GHG emissions. These actions include (but are not limited to): fuel economy standard of 35 miles per gallon (mpg) by 2020; improved energy efficiency in lighting and appliances; and investments in efficiency and renewable energy use.

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) announced a joint final rule to reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States. The rule applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The rule requires these vehicles to meet an estimated combined average emissions level of 295 grams of CO_2 per mile by 2012, decreasing to 250 gram per mile by 2016; the latter figure is equivalent to 35.5 miles per gallon (MPG) if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. The combined EPA GHG standards and NHTSA Corporate Average Fuel Economy (CAFE) standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other states that have adopted the California standards.

EPA "Endangerment Finding" and "Cause or Contribute Finding" (2009)

In its "Endangerment Finding," the Administrator of the EPA found that GHG, as described above, in the atmosphere threaten the public health and welfare of current and future generations. The Administrator also found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. Although the Finding of Endangerment does not place requirements on industry, it is an important step in the EPA's process to develop regulation. This action is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009 (EPA 2010).

In its "Cause or Contribute Finding" the Administrator found that the combined emissions of these well-mixed GHG from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare (EPA 2010).

State

The State of California has adopted legislation, and regulatory agencies have enacted policies addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation and policy activity is not directed at citizens or jurisdictions but rather establishes a broad framework for the state's long-term GHG mitigation and climate change adaptation program. The Governor has also issued several executive orders related to the state's evolving climate change policy. The following legislation is applicable to the Proposed Project.

Assembly Bill 1493 – Pavley Rule

Known as "Pavley I," Assembly Bill (AB) 1493 standards are the nation's first GHG standards for automobiles. AB 1493 requires CARB to adopt vehicle standards that will lower GHG emissions from new light duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (Pavley II) has been proposed for vehicle model years 2017 to 2020. Together, the two standards are expected to increase average fuel economy to roughly 43 MPG by 2020 and reduce GHG emissions from the transportation sector in California by approximately 14 percent. In June 2009, the EPA granted California's waiver request enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year. The new federal CAFE standards, described above, are the analogous national policy.

Executive Order S-3-05

Executive Order (EO) S-03-05 established the following GHG emission reduction targets for California's state agencies:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80% below 1990 levels.

Executive orders are binding only on state agencies. Accordingly, EO S-03-05 will guide state agencies' efforts to control and regulate GHG emissions but will have no direct binding effect on local efforts. The Secretary of Cal-EPA is required to report to the Governor and state legislature biannually on the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing GHG emissions to meet the targets established in this executive order.

Assembly Bill 32 (2006)—The California Global Warming Solutions Act

AB 32 codified the state's GHG emissions target by requiring that the state's global warming emissions be reduced to 1990 levels by 2020. Since being adopted, the CARB, California Energy Commission (CEC), California Public Utilities Commission, and Building Standards Commission have been developing regulations that will help meet the goals of AB 32 and EO S-03-05. The Scoping Plan for AB 32 identifies specific measures and actions to reduce GHG emissions to 1990 levels by 2020, and requires CARB and other state agencies to develop and enforce regulations and other initiatives for reducing GHGs.

Governor's Office of Planning and Research Technical Advisory

SB 97 of 2007 requires the Office of Planning and Research (OPR) to prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of GHG emissions or the effects of GHG emissions as required by CEQA. The Natural Resources Agency adopted Amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

CARB Scoping Plan

AB 32 required CARB to develop a Scoping Plan to lower the state's GHG emissions to meet the 2020 limit (California Health and Safety Code, Sections 38500 et seq.). The Scoping Plan was approved at the December 2008 Board meeting. The measures in the Scoping Plan adopted by the Board will be developed over the next couple of years and be in place by 2012. Key elements of the Scoping Plan include expanding and strengthening existing energy efficiency programs and building and appliance standards; achieving a statewide renewable energy mix of 33 percent; developing a California cap-and-trade program linked with other similar programs; establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets; implementing existing laws and standards such as California's clean car standards (AB 1493), goods movement measures, and the Low Carbon Fuel Standard; and issuing targeted fees to fund the state's long-term commitment to AB 32 administration (CARB 2008).

On April 23, 2009, CARB adopted the Low Carbon Fuel Standard, which has a goal to reduce GHG emissions from California's transportation fuels by 10 percent, equal to 16 $MMTCO_2e$, by 2020. The regulation requires providers, refiners, importers, and blenders to ensure that the fuels they provide for the California market meet an average declining standard of "carbon intensity." This is established by determining the sum of GHG associated with the production, transportation, and consumption of a fuel, also referred to as the "fuel pathway" (CARB 2009b).

Senate Bill 97, Chapter 185, Statutes of 2007

SB 97 of 2007 requires the OPR to prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of GHG emissions or the effects of GHG emissions as required by CEQA. The Natural Resources Agency adopted Amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

Executive Order S-1-07, Low Carbon Fuel Standard

EO S-01-07 essentially mandates the following: (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California.

Senate Bill 375 – Sustainable Communities Strategy, Chapter 728, Statues of 2008

SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires regional transportation plans, developed by metropolitan planning organizations (MPOs) relevant to the project area, including SANDAG, to incorporate a "sustainable communities strategy" (SCS) in their Regional Transportation Plans (RTPs). The goal of the SCS is to reduce regional VMT through land use planning and consequent transportation patterns. The CARB will set regional GHG reduction targets that will focus each SCS. The regional targets are scheduled to be released by the CARB in September 2010. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. However, those provisions will not become effective until an SCS is adopted. SANDAG has not yet developed an SCS and is not expected to adopt an RTP incorporating an SCS until the next RTP update.

Local

Neither the SDAPCD nor the County has regulations relative to GHG emissions applicable to the Proposed Project. The County has a Green Building Incentive Program that is a voluntary program to promote energy- and resource-efficient building design. Incentives, in the form of fast-track plan checking and fee reductions, are offered to developers who use recycled materials in construction, install irrigation systems using greywater, build projects that exceed California's Title 24 (i.e., the energy efficiency standards), or install photovoltaic electricity generation systems.

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations* [CCR]) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Since that time, the energy efficiency standards have undergone several revisions. Effective January 1, 2010, the adopted 2008 Title 24 standards replaced the 2005 Title 24 standards. The CEC adopted the 2008 standards in order to (1) "Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy" and (2) "Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020".

An impact analysis of the 2008 Energy Efficiency Standards estimates that compared to the 2005 Standards, for new multi-family residential construction, electricity use will be reduced by 19.7 percent; peak demand will be reduced by 7.4 percent; and gas consumption will be reduced by 7.0 percent. For new single-family residential construction, electricity use will be reduced by 22.7 percent; peak demand will be reduced by 8.2 percent; and gas consumption will be reduced by 10.0 percent. These percent savings are relative to heating, cooling, lighting, and water heating only and do not include other appliances, outdoor lighting that is not attached to buildings, plug loads, or other energy uses.

3.1.4.2 Analysis of Project Effects and Determination of Significance

Guidelines for the Determination of Significance

The SDAPCD has not identified a significance threshold for analyzing GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. Though, by adoption of AB 32 and SB 97, the State of California has identified GHG reduction goals and that the effect of GHG emissions as they relate to global climate change is inherently an adverse environmental impact issue. The County of San Diego DPLU established the *Interim Approach to Addressing Climate Change in CEQA Documents* (interim guidance), dated May 7, 2010. The guidance outlines an interim approach to addressing climate change for privately initiated projects. The approach will be modified as needed and will be further refined when the County's General Plan Update is completed. The guidance recommends the following significance guideline "The project would not conflict with the implementation of AB 32."

To meet AB 32 goals, California would need to generate less GHG emissions than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels.

AB 32 demonstrates California's commitment to reducing the rate of GHG emissions and the state's associated contribution to climate change, without intent to limit population or economic growth within the state. Thus, to achieve the goals of AB 32, which are tied to GHG emission rates of specific benchmark years (i.e., 1990), California would have to achieve a lower rate of emissions per unit of population than it has now. Further, to accommodate future population and

economic growth, the state would have to achieve an even lower rate of emissions per unit than was achieved in 1990. (The goal to achieve 1990 quantities of GHG emissions by 2020 means that this will need to be accomplished with 30 years of population and economic growth beyond 1990 in place.) Thus, future planning efforts that would not encourage reductions in GHG emissions would conflict with the policy decisions contained in the spirit of AB 32, which would impede California's ability to comply with the mandate.

The State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, it identifies the myriad environmental problems in California caused by global warming (Health and Safety Code, Section 38501[a]). SB 97, however, did amend CEQA by directing OPR to prepare revisions to the CEQA Guidelines addressing the mitigation of GHGs or their consequences. As an interim step toward development of required guidelines, in June of 2008, OPR published a technical advisory, entitled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review." OPR recommends that the lead agencies under CEQA make a good-faith effort, based on available information, to estimate the quantity of GHG emissions that would be generated by a proposed project, including the emissions associated with vehicular traffic, energy consumption, water usage, and construction activities, to determine whether the impacts have the potential to result in a project or cumulative impact and to mitigate the impacts where feasible (OPR 2008).

In that document, OPR acknowledged that "perhaps the most difficult part of the climate change analysis will be the determination of significance," and noted that "OPR has asked CARB technical staff to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state." CARB has not yet completed this task at the time of writing.

Appendix G of the updated State CEQA Guidelines includes guidelines to address impacts of GHG emissions, as directed by Senate Bill 97 (2007). An impact related to global climate change is considered significant if the Proposed Project would:

- Either generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The County DPLU interim guidance states that a project should demonstrate that it would not conflict with the implementation of AB 32 by outlining how it would reduce overall carbon emissions to 33% below business-as-usual. Based on the above information and for the purposes of this analysis in this EIR, the Proposed Project would have a significant impact if it would:

- Result in emissions that would substantially hinder the State's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020; approximately a 33 percent reduction from projected 2020 emissions).

Analysis

To demonstrate that the project would not impede the implementation of AB 32, the project must demonstrate how the carbon emissions generated by the project would be reduced to 33% below projected Business As Usual (BAU) levels in 2020. The 33 percent reduction can be an overall reduction considering both construction and operational emissions combined. The BAU scenario does not include the consideration of special design features, nor the implementation of State emissions and construction standards (e.g., Pavley, low carbon fuel, and 2005 Title 24 Standards), and provides a benchmark for comparison.

Construction

The principal source of GHG emissions during the construction of the Proposed Project would be the internal combustion engines of construction equipment, on-road construction vehicles, and worker's commuting vehicles. The URBEMIS program that is used to calculate criteria pollutant emissions also calculates CO_2 emissions. Although URBEMIS does not calculate emissions of the other GHGs, the relationships of CH_4 and N_2O to CO_2e emissions for diesel- and gasoline-fueled engines are known, and the estimates of CO_2e may be adjusted to estimate CO_2e emissions. The GHG BAU emissions estimates for the Proposed Project are shown in Table 3.1.4-1.

Operation

Long-term operation of the proposed project would generate associated GHG emissions from area and mobile sources, an increase in aviation-related activity, and indirectly from stationary sources associated with increased electricity consumption. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas consumption for space and water heating, and other sources. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with visitors and patrons to the project site. Aviation-related emissions would increase with increased flight activity as a result of the project. The operational emissions from the aircraft were analyzed using the FAA Emissions and Dispersion Modeling System (EDMS) computer model, version 5.1. EDMS is designed to assess the air quality impacts of airport emission sources, particularly aviation sources. Increases in stationary-source emissions at off-site utility providers would occur due to electricity consumption by the proposed facilities, increased water demand, and increased wastewater flows.

Build-out of the proposed project would add approximately 1,407 vehicle trips per day. These vehicle trips, together with the increase in electricity consumption from the new facilities and aviation-related emissions would be the largest sources of GHG emissions associated with project implementation. Under the BAU scenario, construction and operation of the project would generate a total estimated GHG emission of 5,947 metric tons of CO_2e annually (MT/yr) after build-out over the lifetime of the project (Table 3.1.4-1).

Conformance with AB 32 Goals

There are several State regulations enacted since 2005 that have reduced and will continue to reduce GHG emissions from stationary, area, and mobile sources. These measures include those that would reduce emissions from construction emissions (diesel fuel standards), on-road vehicles (Pavley standards and low-carbon fuel standards), natural gas combustion (Title 24 standards), and electricity generation (Renewable Portfolio Standard).The proposed project has incorporated many of the GHG reduction strategies recommended by the Governor's Office of Planning and Research (OPR), California Air Pollution Control Officers Association (CAPCOA), and the California Attorney General as design features. These design features, when combined with federal standards that will result in phase out of the existing aviation fuel and State regulations that will improve the fuel efficiency of the vehicle fleet, require lower carbon content in vehicle fuels, and improve energy efficiency of new buildings, would result in reduced GHG emissions to achieve more than a 33 percent reduction in GHG emissions from the BAU levels. For these reasons, the project is projected to have a ***less than significant impact*** on climate change per the San Diego County DPLU interim guidance.

Project Design Considerations to Reduce GHG Emissions and Comply with AB 32 Goals

The project applicant has identified several design features that will be incorporated into the project to improve sustainability and reduce GHG emissions. Some measures would reduce emissions from construction, while most others would reduce ongoing operational GHG emissions over the project lifetime. These design features will be incorporated during the County's public infrastructure development and will be required through the lease agreement for future private development at Gillespie Field.

Design Features to Reduce Construction GHG Emissions

1. Specify and/or purchase recycled industrial products as much as possible in project design and construction (i.e., recycled steel, concrete, asphalt, landscape materials, etc.).
2. Use locally made building materials for construction of the project and associated infrastructure.
3. Follow idling time best practices for construction equipment.
4. Facilitate, and provide incentives for, ride-sharing for construction workers to minimize single-occupancy vehicle trips to the project site during construction.
5. Provide recycling trash receptacles in project solid waste removal plan for construction.
6. Recycle/Reuse demolished construction material, potentially utilizing the County Construction and Demolition Materials Diversion Program.
7. Use California Air Resource Board (CARB)-certified diesel construction equipment.
8. Use a minimum of 10 percent biodiesel in construction equipment.
9. Reduce fuel consumption in off-road diesel engines by at least 10 percent.

Design Features to Reduce Operational GHG Emissions

1. Exceed Title 24 standards by at least 20 percent, which may include the following:
    - Installation of energy efficient lighting, HVAC systems and control systems.
    - Installation of energy-reducing day lighting systems (e.g., skylights, light shelves, and interior transom windows).
    - Installation of 'cool' roofs with special paint and colors, and with Energy Star labeling if available.
    - Installation of energy efficient light emitting diode (LED) lighting and zoned lighting controllers for hangars and offices.
2. Target Leadership in Energy and Environmental Design (LEED) silver or equivalent certification for all new office-type buildings.
3. Use cool roofs and rooftop solar panels on all new buildings. Maximize installation of solar electric panels to provide at least 50 percent of anticipated electricity usage when feasible.
4. Minimization of outdoor lighting throughout project; using LED lighting for necessary outdoor lighting.
5. Providing education to hangar buyers and renters on energy efficiency for tools, equipment and operational use of their hangars.
6. Engineer hangars to be 'solar ready'.
7. Incorporate water-reducing features into landscaping (e.g., auto shut off heads and soil moisture sensitive irrigation meters for reduced watering time and frequency).
8. Use of drought tolerant and water efficient landscape materials.
9. Evaluate potential use of reclaimed water for landscaping.
10. Design hangars for water efficient/Energy Star appliances.
11. Use of low flow/no flow water fixtures in hangars and offices.
12. Provide educational materials to hangar buyers on water and energy conservation techniques and incentives along with solid waste recycling program and recycling locations on site.
13. Provide recycling trash receptacles in project solid waste removal plan for operation.
14. Design and build pedestrian walkways and use low impact building materials.
15. Provide bicycle parking in hangars to encourage non motorized transportation at project
16. Purchase and use of low or zero emission vehicles for use at project (i.e., maintenance carts, trucks, etc.).
17. Follow idling time best practices for maintenance vehicles, reducing idling time to less than 5 minutes.

Construction GHG Emission Reductions

The sustainable design features associated with construction would reduce GHG emissions, but it is speculative to identify an exact GHG emissions reduction based on the specified measures. Most of the specified measures are considered Best Management Practices (BMPs) and are

expected to be incorporated into modern construction projects. Many of the measures, if fully implemented, would reduce lifecycle GHG emissions (e.g., use of locally sourced materials, recycled industrial products) related to the project's structures and infrastructure. However, there is no currently accepted means for quantifying GHG emission reductions from these types of measures.

The diversion of demolition debris and construction waste to recycling programs and the proposed ride-sharing program for construction workers are two measures which can be quantified at this time. CARB phased diesel regulations would provide the greatest reduction in construction GHG emissions, and are assumed to play a substantial role in reducing GHG emissions during the project lifetime. For calculation purposes, it was assumed that the construction GHG emissions would be reduced by 10 percent due to reduced fuel consumption, and further reduced by 10 percent from use of biodiesel fuel.

Operational GHG Emission Reductions

Table 3.1.4-2 summarizes the potential reductions in GHG emissions from on-site operational design features and federal and state regulatory measures such as the Low Carbon Fuel Standard, which was adopted as a discrete early-action measure of AB 32, the fuel efficiency standards for passenger vehicles and light trucks (AB 1493), Title 24 building standards, and the renewable portfolio standard. For calculation purposes, it was conservatively estimated that a 40 percent reduction in electricity usage would result from the solar electric panel installation requirement. Without implementing any required solar electric installation, there would still be a 31 percent reduction in estimated GHG emissions over BAU. There were no calculations included for GHG emission reductions related to wastewater or solid waste disposal; implementation of those related measures would result in additional GHG emission reductions.

The effectiveness of GHG reduction measures was estimated at approximately 48.6 percent compared to the BAU emissions presented in Table 3.1.4-1. As a result of successful implementation of more than 33 percent reduction in GHG emissions from the levels in Table 3.1.4-1, as required by the DPLU interim guidance, the project would be considered consistent with the goals of AB 32, and the incremental increase in GHG emissions associated with this project would not have a significant impact on the environment, with project design features incorporated. The project would not hinder the state's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020). This would result in a ***less than significant impact***.

3.1.4.3 Conclusion

The effectiveness of GHG reducing design features was estimated at approximately 48.6 percent compared to the BAU scenario presented in Table 3.1.4-1. As a result of successful implementation of more than 33 percent reduction in GHG emissions from the levels in Table 3.1.4-1, as required by the DPLU interim guidance, the project would be considered consistent with the goals of AB 32, and the incremental increase in GHG emissions associated with this project would have a ***less than significant impact*** on the environment. The proposed project would not hinder the state's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020).

Table 3.1.4-1. Estimated BAU Construction and Operational GHG Emissions (without Incorporation of Design Features and Legislation)

Emission Source	CO_2e (MT/yr))	Percent of Total
Construction	17	0.3%
Area Sources	322	5.4%
Aircraft Operations	533	9.0%
Motor Vehicles	2,394	40.3%
Electricity Consumption	2,660	44.7%
Water Consumption	21	0.4%
TOTAL	5,947	100%

Notes: CO_2e = carbon dioxide equivalent; MT/yr = metric tons per year
The first year of full project operation was assumed to occur in 2019
Source: Date compiled by AMEC 2011

Table 3.1.4-2. Estimated Construction and Operational GHG Emissions (with Incorporation of Design Features and Legislation)

Emission Source	CO_2e (MT/yr)) BAU	CO_2e (MT/yr)) With Legislation and Design Features	Percent Reduction from BAU
Construction	17	13.7	19.4%
Area Sources	322	245	23.9%
Aircraft Operations	533	480	9.9%
Motor Vehicles	2,394	1,463	38.9%
Electricity Consumption	2,660	849	68.1%
Water Consumption	21	8.5	59.5%
Total	**5,947**	**3,059.2**	**48.6%**

Notes: CO_2e = carbon dioxide equivalent; MT/yr = metric tons per year
The first year of full project operation was assumed to occur in 2019
Assumes 40 percent of electricity will be generated by solar electric panels on the buildings
Source: Data compiled by AMEC 2011

3.1.5 Hydrology and Water Quality

This section considers the impacts related to floodplains, hydrology, hydromodification management, and water quality. The analysis is based on information from a Hydrology and Water Quality Study Technical Report (Hydrology Report) prepared for the project by PBS&J (PBS&J 2007) and the Cajon Air Center Hydromodification Requirements prepared by Kimley-Horn (Kimley-Horn 2009). These reports are attached as Appendix F to this EIR.

3.1.5.1 Existing Conditions

Floodplains

Flood conditions on the Proposed Project site were determined by reviewing Flood Insurance Rate Maps (FIRM) maintained by the Federal Emergency Management Agency (FEMA). The maps delineate areas that would be inundated by the 100-year and 500-year floods. The western and southern portions of the Proposed Project site are located within Zone X, which is defined as an area within the 500-year floodplain (Figure 3.1.5-1). The northern and eastern portions of the Proposed Project are located outside of the 500-year floodplain. Zone AE, which is defined as a Special Flood Hazard Area inundated by the 100-year flood, is located adjacent to the Proposed Project site contained by Broadway Channel.

Hydrology and Hydromodification

The Proposed Project site is primarily flat with negligible surface depressions, and primarily contains disturbed/developed lands with 1.1 acres of non-native grassland. The majority of storm water that enters the Proposed Project site currently flows to the northwest corner; however, a small portion of runoff does drain south into Broadway Channel which ultimately reaches the San Diego River through existing storm water conveyance systems. Figure 3.1.5-2 shows the drainage patterns on the Proposed Project site, including seven drainage basins.

The Proposed Project site is located within the San Diego Hydrologic Unit (Unit 7) as defined in the San Diego Basin Water Quality Control Plan, referred to as the Basin Plan (RWQCB 1994). This Hydrologic Unit consists of approximately 440 square miles drained by the San Diego River, and consists of four hydrologic areas: Lower San Diego, San Vicente, El Capitan, and Boulder Creek. The Proposed Project is located within the Lower San Diego Hydrologic Area, specifically the El Cajon Subarea.

The County and 20 other cities or jurisdictions in the region (the Copermittees) were issued a NPDES Municipal Storm Water Permit on January 24, 2007 by the RWQCB (Order No. R9-2007-0001). The permit requires the Copermittees to enforce new storm water discharge requirements, including development of a Hydromodification Management Plan and implementation of Low Impact Development (LID) and BMPs in development planning and construction of private and public development projects. Hydromodification refers to changes in the natural pattern of surface storm water or groundwater flow within an area due to development improvements. Land development improvements that create the potential for hydromodification include increasing impervious surface, decreasing vegetation, soil compaction, and construction of drainage facilities. These improvements tend to affect natural flow patterns by decreasing infiltration and increasing volume, velocity, and duration of flows.

Storms that previously would not produce runoff under pre-project conditions could produce erosive flows post-project. Ultimately, these changes in flow patterns could result in erosion of downstream natural channels that may not have occurred without the development improvements. This increased erosion is a result of hydromodification.

Hydromodification can be managed by implementing site-specific design features that seek to reduce runoff flows, volumes, and durations of erosive flows exiting the project site to match pre-development conditions with LID practices. A combination of LID practices and runoff control features such as detention and retention basins can be used to mimic a watershed's natural runoff characteristics (flow rate, flow duration and volume).

Water Quality

The Proposed Project site consists of undeveloped, vacant land. There are currently no activities (businesses) conducted on the site which could result in non-storm water discharges to surface waters containing pollutants. On-site water sources for the Proposed Project site are limited to storm water runoff. Runoff from the site (under its existing conditions) would have the potential to adversely affect water quality from sedimentation.

Runoff from the Proposed Project site does not directly discharge into a water body listed as "impaired," pursuant to the CWA Section 303(d). A small portion of runoff from the site indirectly drains to Forester Creek via the segment of Broadway Channel located immediately south of the Proposed Project site. Forester Creek is classified as a 303(d) listed water body for fecal coliform, pH, and total dissolved solids. Forester Creek has a downstream confluence with the San Diego River and the Pacific Ocean. The San Diego River is classified as a 303(d) listed water body for low dissolved oxygen, phosphorous, and total dissolved solids; the lower six miles is listed as impaired for fecal coliform.

Groundwater

A groundwater plume contaminated with chlorinated solvents and a solvent stabilizing compound is located in the vicinity of the Proposed Project site. The plume, referred to as the *Ketema plume*, is located within the shallow unconfined aquifer encountered at approximately 10 to 14 feet below grade. It is estimated that contamination from this plume underlies approximately 75 percent of the site. The Ketema plume originates approximately 4,000 feet southeast of the site at the Ketema Aerospace and Engineering facilities. Groundwater within the plume is contaminated by trichloroethane TCE, and is also contaminated with tetrachloroethene; 1,1,1-trichloroethane; breakdown components of these solvents; and 1,4-dioxane. Groundwater in the area is not considered a sole source aquifer and is not used for residential water sources in the area.

Dam Inundation Areas

The inundation maps for the El Capitan Dam and San Vicente Dam were prepared in 1974 for the City of San Diego. The inundation map for the Chet Harritt (Lake Jennings) Dam was prepared in 1975 for the Helix Water District. The Proposed Project site is located within the El Capitan Reservoir, Lake Jennings, and San Vicente Reservoir inundation areas, as described below. There are no confined bodies of water in the vicinity of the site.

El Capitan Dam: The El Capitan Dam is approximately ten miles upstream from the Proposed Project site. The dam was constructed in 1935 by hydraulic fill methods, which includes rock-fill with a clay core. The dam has a storage capacity of 112,807 acre-feet of water at the spillway elevation of 750 feet AMSL.

Chet Harritt Dam (Lake Jennings): The dam is an earth-fill dam located approximately three miles east of the 70-acre site. Lake Jennings, which is retained by the dam, has approximately 10,700 acre-feet of capacity. The dam was constructed in 1962 by modern methods aimed to reduce potential impacts from seismic damage.

San Vicente Dam: The San Vicente Dam consists of a concrete gravity structure located approximately 3 miles northeast of the Proposed Project site. The dam was constructed in 1943 and has a capacity of 90,230 acre-feet of water. Studies completed in 1981 concluded the dam was capable of resisting seismic damage under the regional seismic regime.

The San Diego County Water Authority is proposing to raise San Vicente Dam by 63 feet to provide room for additional water. The PEIR prepared for the San Vicente Dam Improvements determined that the downstream dam break flood zone would not change significantly with the expanded reservoir. The addition of 63 feet may actually reduce the risk of dam failure as a result of the new dam structure, which would be attached to the downstream face of the existing dam. There are no confined bodies of water in the vicinity of the site.

Tsunamis and Seiches

A tsunami is a sea wave generated by submarine earthquakes, landslides, or volcanic activity, which displace a relatively large volume of water in a very short period of time. Seiches are defined as oscillations in a semi-confined body of water due to seismic shaking. The Proposed Project site is located approximately 18 miles from the Pacific Ocean. There are no confined bodies of water in the vicinity of the site.

3.1.5.2 Regulatory Environment

The following section provides a list of the relevant regulations associated with Hydrology and Water Quality.

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) established guidelines for regulating discharges of pollutants into waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA. In California, the EPA has delegated responsibility for implementation of portions of the CWA to the State Water Resources Control Board (SWRCB) and the relevant RWQCBs, including water quality control planning and programs. The following is a brief summary of CWA sections pertinent to the Proposed Project.

Clean Water Act Section 402 — National Pollutant Discharge Elimination System Program

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program to control water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, the EPA has authorized the SWRCB to implement the NPDES Program. In general, the SWRCB issues two baseline general permits, one for industrial discharges and one for construction activities. The Phase II Rule that became final on December 8, 1999, expanded the existing NPDES program to address storm water discharges from construction sites that disturb land equal to or greater than 1 acre. The Effluent Limitation Guidelines for construction and development were recently revised and these revisions took effect on February 1, 2010.

Clean Water Act Section 303(d) —TMDL Program

The State adopts water quality standards to protect beneficial uses of state waters as required by Section 303 of the CWA and the state's Porter-Cologne Water Quality Control Act of 1969 (discussed below under State Regulations). Section 303(d) establishes the total maximum daily load (TMDL) process to guide the application of state water quality standards. Under this section, the state generates and maintains a list of water bodies that are "impaired" (polluted) by any number of chemical or physical pollutants. A TMDL program is then established to improve water quality and reduce or eliminate the presence of the relevant pollutants.

Federal Flood Insurance Program

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations specifying protection measures for development in floodplains. FEMA issues FIRMs for communities participating in the NFIP. These maps delineate flood hazard zones in the community. The locations of FEMA-designated floodplains for the 70-acre site (which include areas within the 100-year floodplain (Zone AE) and within the 500-year floodplain (shaded Zone X), and areas outside the 500-year floodplain (un-shaded Zone X)) are included in the Affected Environment/Existing Conditions discussion above (Figure 3.1.5-1).

State Regulations

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Act, Division 7 of the California Water Code, is the basic water quality control law for California. The goal of the Porter-Cologne Act is to create a regulatory program to protect water quality and beneficial uses of the state's waters. As such, the state and regional boards were established to implement and enforce the Clean Water Act and state-adopted water quality control plans.

The SWRCB is responsible for issuing storm water permits in accordance with the NPDES program. For projects disturbing one or more acres of land, the applicant must file a Notice of Intent for coverage under the General Permit for Storm Water Discharges Associated with

Construction Activity (General Permit) and prepare a SWPPP that specifies BMPs to prevent pollutants from contacting storm water and procedures to control erosion and sedimentation.

The County is within the jurisdiction of the San Diego RWQCB (Region 9). Each RWQCB is responsible for water quality control planning within its region, often in the form of a Basin Plan. A major purpose of the Basin Plan is to define beneficial uses of surface water and groundwater. Beneficial uses are defined as the uses of water necessary for the survival or well being of man, plants, and wildlife. Examples include drinking, swimming, industrial and agricultural water supply and the support of fresh and saline aquatic habitats. Water quality objectives seek to protect the most sensitive of the beneficial uses designated for a specific water body. The RWQCB is also responsible for implementing the provisions of the General Permit, including reviewing SWPPPs and monitoring reports, conducting compliance inspections, and taking enforcement actions.

Regional and Local Regulations

Municipal Storm Water Permit

The County and 20 other cities or jurisdictions in the region (the Copermittees) were issued a NPDES Municipal Storm Water Permit on January 24, 2007 by the San Diego RWQCB (Order No. R9-2007-0001). The permit renews Permit No. CAS0108758, which was first issued on July 16, 1990 (Order No. 90-42) and later renewed on February 21, 2001. The permit requires the Copermittees to enforce new storm water discharge requirements, including development of a Hydromodification Management Plan and implementation of Low Impact Development (LID) and BMPs in development planning and construction of private and public development projects. Development projects are also required to include BMPs to reduce pollutant discharges from the project site in the permanent design. BMPs associated with the final design are described in the Model Standard Urban Storm Water Mitigation Plan (SUSMP). In addition, the County requires a Storm Water Management Plan (SWMP) to describe potential construction and post-construction pollutants and identify BMPs to protect water resources. The Low Impact Development Handbook, Stormwater Management Strategies (County of San Diego 2007e) has been prepared to provide a comprehensive list of LID planning and storm water management techniques to assist development in complying with the municipal permit.

The County's Model SUSMP requires incorporation of appropriate LID BMPs to minimize pollutant loads from a project site. LID BMPs must meet minimum requirements and achieve certain performance standards set forth in the Municipal Storm Water Permit. The SUSMP includes a menu of selected BMPs that a project can choose from to meet these requirements, which includes a combination of LID BMPs that either disperses and infiltrates, or directs the flows from all impervious areas on site to bioretention facilities.

County of San Diego Grading, Clearing and Watercourses Ordinance

The San Diego County Grading, Clearing, and Watercourses Ordinance, as amended on April 23, 2004, regulates the design and practice of grading, clearing, and filling of land through the establishment of design requirements and procedures, including grading plan check and site

inspections. All development done by the County will be in conformance with the Grading, Clearing and Watercourses Ordinance.

County of San Diego Hydromodification Management

As part of the NPDES Permit No. R9-2007-0001 adopted on January 24, 2007, the Copermittees within the County of San Diego were directed to enforce new storm water discharge requirements, to include development of a Hydromodification Management Plan for priority projects. On July 14 2010, the San Diego RWQCB approved a Hydromodification Management Plan (revised March 2011) for San Diego County. The Final Hydromodification Management Plan defines project categories based on size of the project, complexity, location in the watershed, and stability of the receiving water body/channel. Specific flow control requirements will vary depending on whether an existing stream is classified as having either a high, medium, or low susceptibility to channel erosion.

City of El Cajon Plans and Programs

The City of El Cajon Storm Water Management and Discharge Control Ordinance has been adopted in conformance with RWQCB requirements and establishes a local policy and enforcement framework for the protection and management of storm water and non-storm water to protect the health, safety, and general welfare of city residents.

3.1.5.3 Analysis of Project Effects and Determination of Significance

The identified significance thresholds for hydrology and water quality impacts are based on criteria provided in the *County Guidelines for Determining Significance for Hydrology* (County 2007d) *and Surface Water Quality* (County 2007f). These Guidelines were adapted from Appendix G of the CEQA Guidelines and developed using the best available information, with input from experts and the public. A significant impact would result if any of the following would occur:

1. The project will 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.
2. The project will increase water surface elevation in a watercourse within a watershed equal or greater than one square mile, by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, two-tenths of a foot or more in height.
3. The project will result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.
4. The project will result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map, or County Alluvial Fan Map, which would subsequently endanger health, safety, and property due to flooding.

5. The project will place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:

    a. Alter the Lines of Inundation resulting in the placement of other housing in a 100 year flood hazard;

    OR

    b. Increase water surface elevation in a watercourse with a watershed equal to or greater than one square mile by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River two-tenths of a foot or more in height.

6. The project is a development project as defined in County Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended, and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities as set forth in Regulatory Ordinances, Section 67.
7. The project would drain to a tributary of an impaired water body listed on the CWA Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.
8. The project would drain to a tributary of a drinking water reservoir and will contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions.
9. The project will contribute pollution in excess of that allowed by applicable state or local water quality objectives or will cause or contribute to the degradation of beneficial uses.
10. The project does not conform to applicable federal, state or local “Clean Water” statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

3.1.5.4 Drainage and Landform Alteration

Guidelines for Determination of Significance
A significant impact to hydrology would occur if the project 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.
- Increase water surface elevation in a watercourse within a watershed equal or greater than one square mile, by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, two-tenths of a foot or more in height.
- Result in increased velocities and peak flow rates exiting the project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.

Analysis

The major hydrological feature in the vicinity of the Proposed Project site is Broadway Channel, which is located immediately south of the site, and is a tributary to Forester Creek. Broadway Channel is located outside of the Proposed Project footprint; therefore, the project would not directly alter Broadway Channel or its existing drainage pattern, nor would it substantially alter the existing on-site drainage patterns in a manner that would result in substantial erosion or siltation on or off site. Therefore, this impact would be *less than significant*.

Runoff from the Proposed Project would flow into existing adjacent unimproved drainages and other primary discharge points. Based on the assumed runoff coefficients and the estimated peak discharge rates shown in Table 3.1.5-1, the Proposed Project could result up to a 77 percent increase in the peak discharge rate at existing storm water facilities. As described in the Hydrology Report, the Proposed Project would be required to meet the existing peak discharges, which would require detaining storm water on-site. The amount of storm water detained for each drainage outlet on the Proposed Project site is defined as the "increase in cfs" in Table 3.1.5-1. Facilities would be sized to accommodate the 100-year flood flows routed through on-site detention facilities (PBS&J 2007). Therefore, increased velocities and peak flow rates exiting the project site would result in a *less than significant impact*.

As part of the project design of the public infrastructure to be improved by the County, the following design features would be incorporated into the Proposed Project:

- Prior to any development on the Proposed Project site, the County shall prepare a Conceptual Master Grading Plan in accordance with the San Diego Grading, Clearing, and Watercourse Ordinance and consistent with the San Diego County Drainage Design Manual (County of San Diego 2005) that will address all grading and drainage improvements necessary to accommodate the Proposed Project. The Conceptual Master Grading Plan shall identify the size of the outlet drainage facilities necessary to accommodate development. In addition to constructing the necessary drainage facilities for the proposed improvements, the County shall also construct the necessary outlet drainage facilities on the Proposed Project site.
- Prior to any development on the Proposed Project site, the County shall prepare a storm water detention system plan consistent with the San Diego County Drainage Design Manual (County of San Diego 2005), to ensure project storm flows do not exceed existing conditions. The storm water detention system plan shall identify required on-site storm water detention facilities and storm water drainage inlets and outlets required to handle the estimated volume of 100-year flows at the site.
- The County shall implement LID Integrated Management Practices (IMPs) and LID BMPs to reduce storm water runoff rates and duration consistent with guidelines in the County of San Diego Standard Urban Storm Water Mitigation Plan for Land Development and Public Improvement Projects (January 8, 2011). The LID IMPs and LID BMPs shall meet all requirements outlined in the County's Model SUSMP and provide a reduction in storm water runoff rates to achieve no net increase in flow rates discharged from the project site. Storm water runoff reduction shall be accomplished by

strategic placement of LID IMPs uniformly throughout the project site to mimic the natural flow regime and capture any net increase in runoff through increased infiltration. The following specific LID IMPs shall be considered in the project's final design to meet the required reduction in storm water runoff. Private development of aviation use areas would be required to implement LID IMPs including vegetated roof systems, infiltration trench/islands/beds, vegetated or rock swales/filter strips, rain water harvesting (cisterns/rain barrels), bioretention, and/or permeable pavement and materials.

Redevelopment of the Proposed Project site will involve development of more than one acre of commercial/industrial uses; therefore, the project will comply with the Final Hydromodification Plan for San Diego County as outlined in the County of San Diego Watershed Protection Ordinance (Section 67.812(b)) and approved by the RWQCB on July 14, 2010. The project would demonstrate that post-project runoff will not cause or accelerate downstream channel erosion or other negative impacts to beneficial stream uses. The hydromodification plan will follow the approach outlined in Appendix F. Additionally, a continuous simulation of the rainfall record will be performed to confirm that the estimated post-project runoff durations and peak flows do not exceed the pre-project durations and peak flows as required by the County's WPO (Section 67.812(b) Hydromodification Management).

3.1.5.5 Flood Hazard

Guidelines for Determination of Significance
A significant environmental impact would occur if the project would:

- Place housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map, or County Alluvial Fan Map, which would subsequently endanger health, safety, and property due to flooding.
- Place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:
    - Alter the Lines of Inundation resulting in the placement of other housing in a 100-year flood hazard;

      OR

    - Increase water surface elevation in a watercourse with a watershed equal to or greater than one square mile by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River two-tenths of a foot or more in height.

Analysis
The Proposed Project would not include the development of housing and therefore would not 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. Furthermore, the project proposes no development in or alteration of Broadway Channel, which is delineated by FEMA as within the 100-year flood event. Therefore, the Proposed Project would result in *less*

than significant impacts related to housing or other structure within a FEMA 100-year flood hazard area.

The Proposed Project site is located downstream of San Vicente Reservoir, El Capitan Reservoir and Lake Jennings Reservoir within a dam inundation zone (City of Santee 2003). The safety of these dams is reviewed annually by the California Department of Water Resources, Division of Dam Safety. In addition, the County of San Diego Office of Disaster Preparedness has prepared a report for the General Dam Evacuation Plan for the County. Dam evacuation plans are maintained by the County Office of Emergency Services, and these plans contain information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions and event responses. The General Dam Evacuation Plan concludes that the risk of dam inundation would be low. Therefore, the project would not expose people or structures to flooding from a dam failure, and impacts would be *less than significant*.

3.1.5.6 Water Quality – Regulatory Compliance

Guidelines for Determination of Significance
A significant impact to water quality would occur if:

- The project is a development project as defined in County Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended, and does not comply with the standards set forth in the County Stormwater Standards Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities as set forth in Regulatory Ordinances, Section 67.
- The project does not conform to applicable federal, state or local "Clean Water" statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

Analysis
The Proposed Project is a development project as defined in County Code of Regulatory Ordinances Section 67.804(g), and therefore would be required to comply with the standards set forth in the County Stormwater Standards Manual. In addition, it would involve the development of more than one acre of commercial/industrial uses, and therefore would be classified as a "priority development project" and be required to install, implement, and maintain storm water BMPs as required by Section 67.812 of the County Code.

Construction

Construction activities would have the potential to result in erosion leading to sediment-laden discharges to nearby water resources, and sediment transport to drainages could result in degradation to water quality. Similarly, fuels, oils, lubricants, and other hazardous substances used during construction could be released and impact surface runoff. The release of sediment and other deleterious substances from the project site can be controlled through the use of appropriately selected erosion control devices as required by regulations summarized above in Section 3.1.5.2.

BMPs will be implemented to address water quality impacts during the planning and design, construction, and operational and maintenance stages. At the planning and design phase, BMPs will be implemented by the design engineer or architect designing the project. At the construction phase, BMPs will be implemented by the construction contractor responsible for the work. At the operational and maintenance phase, BMPs will be implemented and maintained by the County (for public infrastructure) and individual developers (for private development). Listed below are specific BMPs required for implementation during construction.

The Proposed Project will require more than one acre of soil disturbance. Erosion could potentially occur if it is not controlled by an effective combination of erosion and sediment control BMPs. BMPs will be implemented to address both storm water and non-storm water discharges during construction. The temporary control practices are consistent with the BMPs and control practices required under the State of California NPDES General Permit for Storm Water Discharges Associated with Construction Activity, and are intended to achieve compliance with the requirements of the State's General Construction Permit. The selected BMPs are directed at reducing pollutants in storm water discharges and eliminating non-storm water discharges.

Required Construction BMPs for this project include:

√	*Silt Fence*	√	*Check Dams*
√	*Fiber Rolls*	√	*Gravel Bag Berm*
√	*Street Sweeping and Vacuuming*	√	*Sanitary/Septic Waste Management*
√	*Material Delivery and Storage*	√	*Stockpile Management*
√	*Spill Prevention and Control*	√	*Solid Waste Management*
√	*Concrete Waste Management*	√	*Stabilized Construction Entrance/Exit*
√	*Water Conservation Practices*	√	*Hydroseeding and/or Soil Binders*
√	*Paving and Grinding Operations*	√	*Velocity Dissipation Device*
√	*Storm Drain Inlet Protection*	√	*Wind Erosion Control*
√	*Scheduling*	√	*Concrete Curing*

The SWPPP describes construction methods and BMPs necessary to ensure that water quality is protected in and around the construction project. The SWPPP, and the BMPs it describes, will be implemented by the construction contractor during construction of the project. Implementation of a SWPPP and the construction BMPs in accordance with the project plans and specifications, which are in compliance with federal, state, and local regulations, would reduce potential water quality construction impacts to *less than significant*.

Operation

Different types of BMPs will be installed during and post-construction (i.e., during operation) to ensure long-term protection of water quality within the project area. These will include site design, source control, and treatment control BMPs:

- *Site Design BMPs* – BMPs that create a hydrologically functioning project design that attempt to mimic the natural hydrologic regime. Examples include reducing imperviousness, conserving natural resources, and providing runoff storage measures dispersed uniformly throughout a site's landscape with the use of a variety of detention, retention and runoff practices.
- *Source Control BMPs* – BMPs that are incorporated during site planning and approval, consistent with applicable General Plan policies and other development regulations. Examples include storm drain system stenciling and signage and design of trash storage areas to reduce pollution introduction
- *Treatment Control BMPs* – BMPs designed to remove specific pollutants from the storm water conveyance system to the maximum extent practicable. These BMPs are focused on the site-specific pollutants generated by the project. Treatment Control BMPs include biofilters, detention basins, infiltration basins, wet ponds/wetlands, drainage inserts, filtration, and hydrodynamic separator systems

Site design, source control and treatment control BMPs are part of the design of the project and will be built into the project during and post construction. These features will be maintained by County staff (for public infrastructure) and individual developers (for private development). Implementation of these measures would comply with state and federal water quality regulations and reduce potential water quality impacts to *less than significant*.

3.1.5.7 Water Quality – Contribution of Pollutants

Guidelines for Determination of Significance
A significant impact to water quality would occur if the project would:

- Drain to a tributary of an impaired water body listed on the CWA Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.
- Drain to a tributary of a drinking water reservoir and will contribute substantially more pollutant(s) than would normally runoff from the project site under natural conditions.
- Contribute pollution in excess of that allowed by applicable state or local water quality objectives or will cause or contribute to the degradation of beneficial uses.

Analysis
Forester Creek, which receives flows from Broadway Channel, is classified as a 303(d) listed water body for fecal coliform, pH, and total dissolved solids. Construction of the Proposed Project has the potential to affect water quality, if not managed, as a result of sedimentation and polluted storm water runoff. Similarly, fuels, oils, and other hazardous substances used during construction or future operation of aviation uses at the Proposed Project site could be released and impact surface water quality.

However, proper management of sediment and pollution control measures will be implemented prior to the construction of infrastructure and future private developments. Water quality impacts would be minimized through incorporation of the project design features identified in Sections 3.1.5.4 and 3.1.5.6 of this PEIR, and through the implementation of a SWPPP prepared by the County and each private project developer as a condition of the lease agreement for development on the Proposed Project site. In accordance with the NPDES permit, the SWPPP will ensure that adequate BMPs will be applied. The County and leasehold developers will be required to implement measures identified in a Hydromodification Management Plan which include storm water facilities including retention basins and LID measures. Although runoff has the potential to flow into Broadway Channel which would ultimately reach an impaired water body, the Proposed Project would not contribute substantial additional pollutants as the appropriate BMPs would be implemented to control runoff prior to entering Broadway Channel. Therefore, the Proposed Project would have a less than significant impact. Additionally, through implementation of the SWPPP, Hydromodification Management Plan, and project design features, the Proposed Project would result in a *less than significant impact*.

3.1.5.8 Cumulative Impact Analysis

The cumulative study area for floodplains, hydrology, and water quality covers an approximately 1-mile radius. This area was selected because project vicinity is predominantly built out and expansion of the cumulative study area would not result in additional projects with similar floodplain, hydrology, and water quality impacts. Table 1.2 lists 49 cumulative projects that occur or are expected to occur within one mile of the Proposed Project site, four of which were found to have significant impacts relating to hydrology and water quality.

Each of the identified cumulative projects will be required to address individually-generated construction and post-construction runoff in order to comply with the Federal Water Pollution Control Act and the State's Porter-Cologne Water Quality Control Act. Adherence to the regulations governed by jurisdictional agencies substantially reduces the cumulative impacts of multiple projects on water quality, including potential violations to water quality standards and waste discharge requirements. Each of the identified cumulative projects will also be required to prepare a SWPPP per the NPDES under the Clean Water Act. These SWPPPs will ensure that adequate BMPs are used for each of the projects to minimize water quality impacts. Given current regulations, each project would be constructed and managed in accordance with regional requirements which typically require acquisition of discharge permits and the use of BMPs to limit erosion, control sedimentation, and reduce pollutants in runoff.

Similar to the effects increased runoff can have to water quality, hydrological changes such as increased runoff rates and volumes can overwhelm existing storm water conveyance systems with an increase in impervious surfaces. With mitigation, the Proposed Project would not contribute to cumulative flooding or impacts to storm water drainage systems. Therefore, the impacts of the Proposed Project on floodplains, hydrology, and water quality would not be cumulatively considerable. Therefore, due to project-specific controls as well as compliance with all federal and state regulations, cumulative impacts to hydrology and water quality would be *less than significant*.

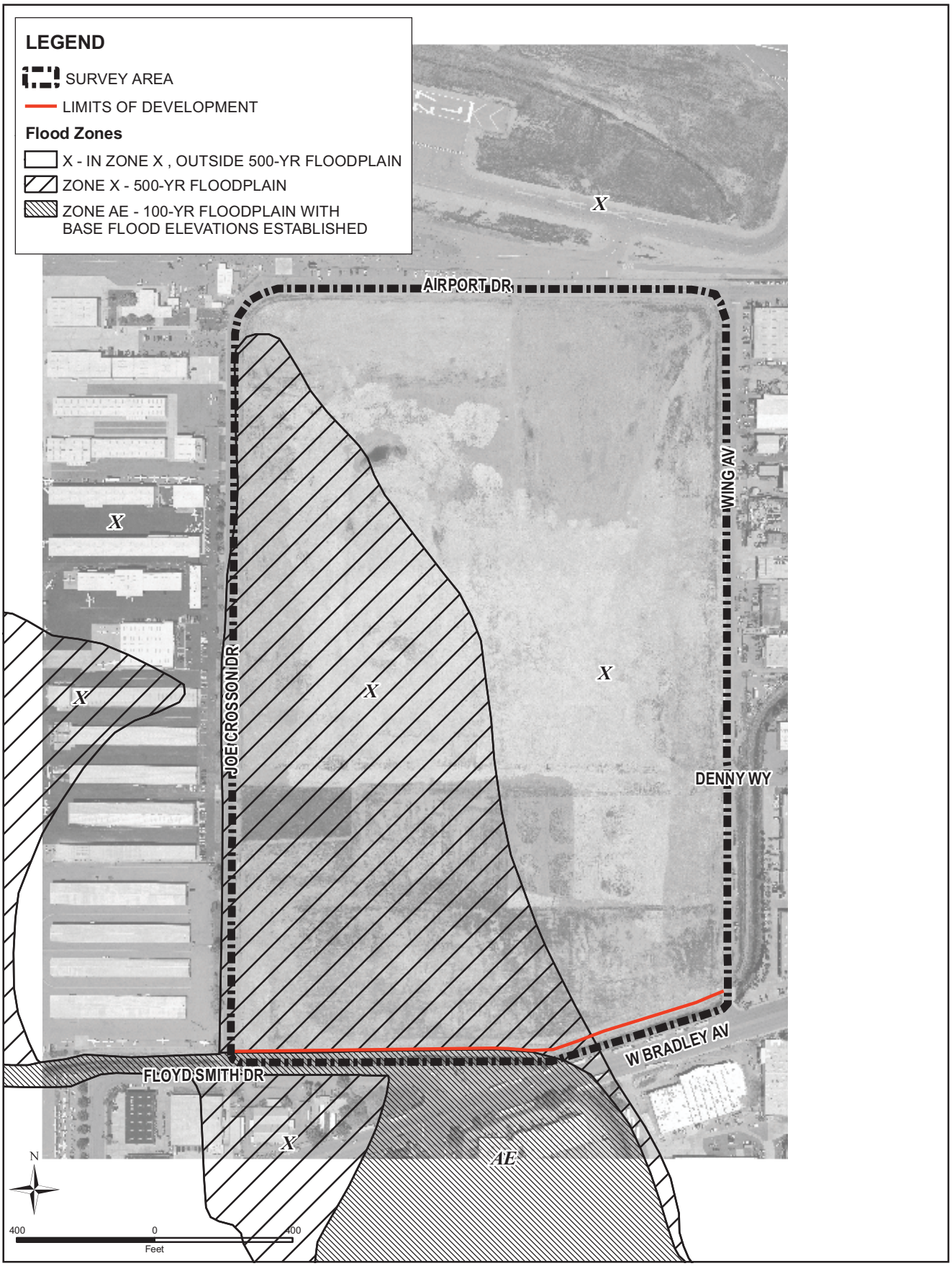
3.1.5.9 Conclusion

The Proposed Project would not pose a flood hazard nor would directly alter the Broadway Channel or its existing drainage pattern since no development will occur within this location. Although the Proposed Project would introduce impervious surfaces in an area that was previously permeable, project design features would be incorporated that would reduce the potential to create or contribute to runoff that may exceed the capacity of existing water drainage systems. Therefore, the Proposed Project would result in a *less than significant* impact to hydrology.

The Proposed Project could result in impacts related to sedimentation and pollution of storm water during construction of the Proposed Project; however implementation of the identified project design features would reduce the potential to result in runoff that would exceed water quality standards established by federal, state and local regulations. Therefore, the Proposed Project would result in a *less than significant* impact to water quality.

Table 3.1.5-1. Computed Peak Flows for Existing and Proposed Project for 10- and 100-Year Event

Drainage Basin	Existing Alt Q cubic square feet (cfs)	Increase in cfs	Increase in %	Proposed Project Developed Q (cfs)	Increase in cfs	Increase in %
10-year Storm Event						
1	2.80	0.00	0.0	4.97	2.17	77.3
2	27.44	10.05	36.6	47.88	20.44	74.5
3	32.76	15.08	46.0	56.82	24.06	73.5.
4	3.14	0.00	0.0	4.91	1.78	56.6
5	0.99	0.76	77.0	1.76	0.76	77.0
6	3.11	0.60	19.3	3.93	0.81	26.2
7	6.88	5.18	75.2	12.06	5.18	75.2
100-year Storm Event						
1	3.69	0.0	0.0	6.09	2.41	65.3
2	35.80	11.86	33.1	59.59	23.80	66.5
3	42.64	18.49	43.4	71.79	29.15	68.4
4	3.98	0.0	0.0	6.31	2.33	58.5
5	1.24	0.89	71.6	2.13	0.89	71.6
6	3.94	0.92	23.4	5.09	1.15	29.2
7	8.87	6.19	69.8	15.06	6.19	69.8



SOURCE: County of San Diego 2006

FEMA Flood Designations

Figure 3.1.5-1

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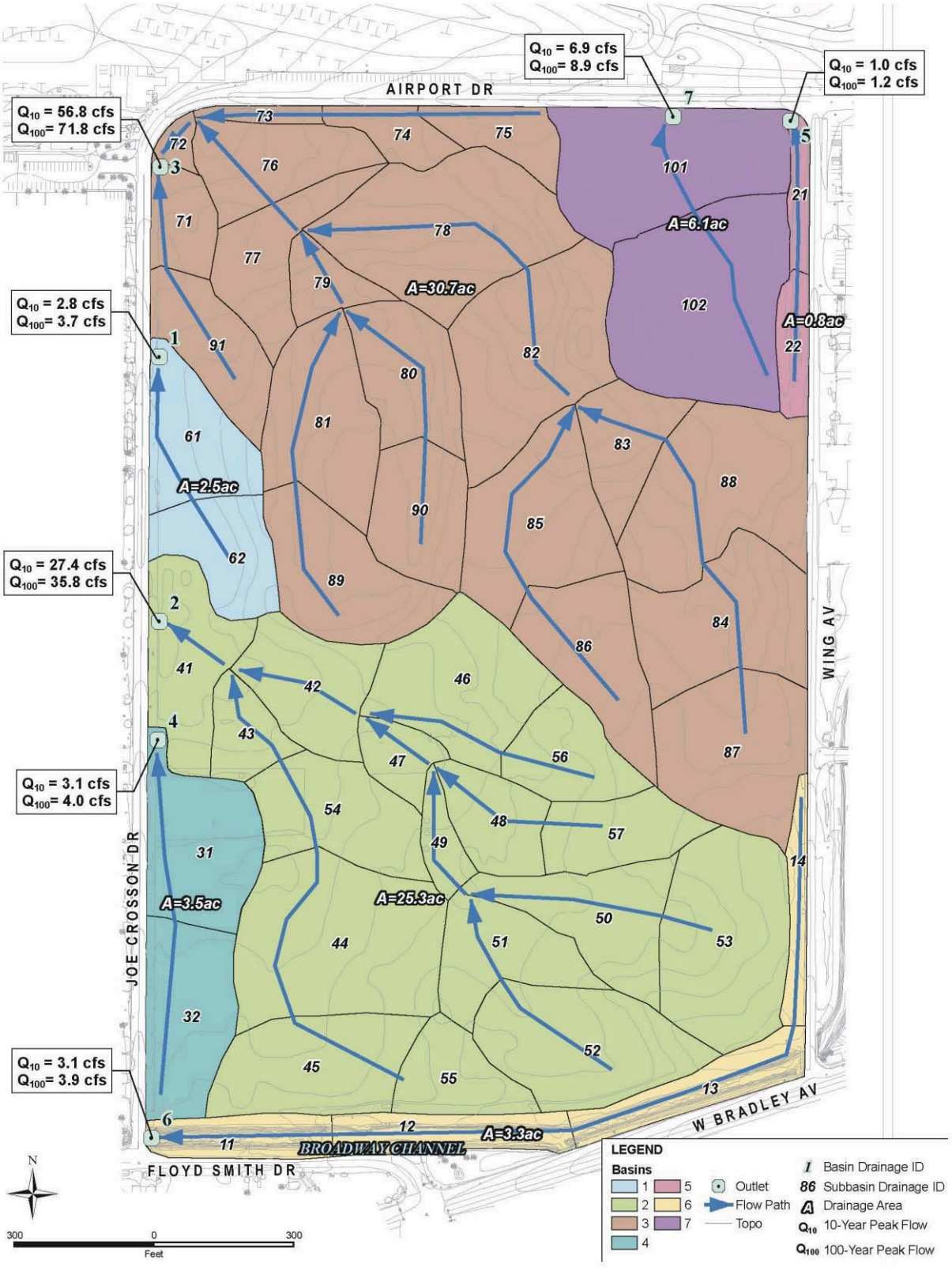

Existing Drainage Patterns

Figure 3.1.5-2

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3.1.6 Land Use and Planning

This section presents information and analysis of potential impacts to existing and planned land uses in the Proposed Project area and has been compiled based on the Gillespie Field Land Use Compatibility Analysis prepared for the project by Ricondo & Associates, Inc. (2008d). This report is included as Appendix G of this PEIR.

The land use analysis evaluates potential aircraft noise effects upon implementation of the Proposed Project in 2019 and their potential for making land uses incompatible in areas surrounding Gillespie Field. As established in Section 3.1.7, a less than significant noise impact associated with the Proposed Project under CEQA is anticipated.

3.1.6.1 Existing Conditions

Gillespie Field is located approximately 13 miles northeast of downtown San Diego. The County-owned Gillespie Field is located in the municipal limits of the City of El Cajon, with the exception of a small portion of property located north of Prospect Avenue as well as a small area near Runway 17/23, which are in the City of Santee. East of Runway 27R, there are several airport-owned parcels within the unincorporated County. The main highway access to Gillespie Field is provided by I-8, which traverses east to west through the City of El Cajon, and SR-67, a north-south highway that begins at I-8 and terminates in the unincorporated community of Ramona. Gillespie Field is generally bounded by Kenney Street and Prospect Avenue on the north, Magnolia Avenue on the east, Bradley Avenue on the south, and Cuyamaca Street on the west. The main access road into the airport is Joe Crosson Drive, which via Floyd Smith Drive takes access off of Bradley Avenue, just west of SR-67.

Background
The County-owned Gillespie Field Airport was annexed into the City of El Cajon in 1977 and since then, the City of El Cajon has maintained land use authority over the private development of Gillespie Field. Accordingly, as it relates to the Proposed Project, future private development on the Proposed Project site is subject to discretionary review by the City of El Cajon. The County maintains land use authority over the public airport development at Gillespie Field.

3.1.6.2 Existing Land Uses

<u>On-site Uses</u>

The existing 757-acre airport property is primarily used for aviation-related activities and supports three runways, helicopter operating areas, an airport traffic control tower, terminal/administration buildings, aircraft parking aprons, aircraft storage spaces, aircraft hangars, as well as other buildings housing private companies and support facilities. The Proposed Project site, located in the southeastern corner of the 757-acre airport property, was previously the site of the Cajon Speedway until the end of their lease in 2005.

Currently, the site is undeveloped, vacant and graded. The Proposed Project site supports a population of San Diego ambrosia within and adjacent to an existing 1.1-acre ecological preserve that is currently fenced off from the remainder of the site. A paved lot is also located in the southwestern portion of the Proposed Project site.

Adjacent Uses

Existing uses adjacent to the Proposed Project site include industrial and office buildings to the south and east; and airport hangars, aprons, and the runways to the west and north. Residential uses are located east of the Proposed Project site across SR-67 and north of Prospect Avenue. Further to the north, past Runway 9L/27R, are large office and airport use buildings. There are three schools located less than one mile from Gillespie Field property. The two closest schools are Chaparral High School and Phoenix High School, which are both special high school programs within the Grossmont Union School District co-located less than one mile to the southwest. Pepper Drive School (K-8) in the Santee School District is located less than one mile to the northeast.

3.1.6.3 Relevant Policies, Ordinance, and Adopted Plans

State and Local Requirements

Airport Land Use Compatibility Plan for Gillespie Field

In 1970, the State of California enacted a law requiring the formation of an Airport Land Use Commission (ALUC) in each county containing a public airport (California Public Utilities Code §§21670, et seq.). The purpose of the ALUC is to protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses. The San Diego County Regional Airport Authority (SDRAA) performs responsibilities of the ALUC for all 16 airports within the County. As part of that responsibility, the Airport Authority has prepared and adopted an ALUCP for Gillespie Field. This plan is also referred to as the CLUP. The purpose of the Gillespie Field ALUCP is to ensure compatibility between adjacent land uses and the operation and/or expansion of the airport and to safeguard the general welfare of the inhabitants within the vicinity of the Airport and the public in general. The ALUCP focuses on noise levels and how the surrounding land uses are impacted by noise. The ALUCP identifies an Airport Influence Area (AIA) that designates the general area in which current and future airport-related noise, over flight, safety, and/or airspace protection factors may affect land uses or necessitate restrictions on the uses. Implementation of the ALUCP is intended to reduce the adverse impacts from aircraft noise, limit the increase in the number of people exposed to airport approach hazards, and ensure that no structures are erected that are deemed by the FAA to be hazards, and that no obstructions are erected that either individually or cumulatively cause an adverse safety affect on air navigation as determined by the FAA. The current ALUCP for Gillespie Field was adopted in 2010.

Due to the close coordination with the SDRAA regarding the existing and project noise contour lines, the Proposed Project is consistent with the revisions to the ALUCP as adopted. It should be noted per state law that the County of San Diego, City of El Cajon and City of Santee, are required to comply with the policies of the SDRAA. State law explicitly requires the County and affected cities to modify their general plans and specific plans and ordinances (including zoning designations) to be consistent with the ALUCP or to take special steps to overrule the findings of the ALUC. Additionally, private parties are subject to the provision of the ALUCP either directly or as implemented in plans and zoning of the affected city or the County.

County of San Diego General Plan

Gillespie Field and the 70-acre Proposed Project site planned for development are owned by the County. The San Diego County General Plan includes requirements for land use compatibility for County airports in its Mobility Element, as stated in the following goal and policy:

- Goal M-7 Airport Facilities. 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 – 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.

The following goals and policies included in the Noise Element of the County of San Diego General Plan are applicable to the Proposed Project:

- Goal N-1 Land Use Compatibility. A noise environment throughout the unincorporated County that is compatible with the land uses.

  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

- Goal N-4 Transportation-Related Noise Generators. A noise environment that reduces noise generated from traffic, railroads, and airports to the extent feasible.

  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 and the FAA.

Gillespie Field Master Plan

The original 1974 Gillespie Field Master Plan was updated by the County in 1986 and provides a guide for the expansion and redevelopment of light industrial and commercial uses in Gillespie Field that is consistent with the economic, environmental, and social goals of the community. The Master Plan also includes development guidelines streets, grading, land use, site design, parking and loading areas, utilities, architecture, signage and lighting, and landscaping.

City of Santee Regulations

The City of Santee General Plan, most recently updated in 2003, is the main planning document for the City and provides the goals, objectives, and policies to achieve desired community needs through a coordinated implementation project. According to the Safety Element of the General Plan Section 5.6 *Aircraft Hazards* states "There are currently no areas in the City which are within designated crash hazard zones as identified in the CLUP for Gillespie Field. However, various Airport Safety Zones designated by the Caltrans Division of Aeronautics do extend into the City. While these areas are almost entirely developed, the City will ensure that future development or redevelopment in the most restrictive safety zones addresses airport safety issues through measures such as recordation of avigation easements, and should discourage the establishment of sensitive uses such as hospitals and schools in those zones." Objective 7.0, Policy 7.1, of the Safety Element recommends that the City review all development proposed within the Gillespie Field Airport Influence Area to ensure that design features are incorporated into the site plan to address aircraft safety and noise hazards.

City of El Cajon Regulations

Although the County owns the land, future private development at Gillespie Field will need to comply with City of El Cajon plans and regulations.

In the El Cajon General Plan, the Proposed Project site is designated as Industrial Park. The Proposed Project site is also zoned for manufacturing uses. Gillespie Field also has a Special Development Area overlay in addition to the land use designations. Special Development Areas 1, 5, and 6 provide special development possibilities on Gillespie Field. The Proposed Project site is located in Special Development Areas 5 and 6. The purpose of this overlay is to allow flexibility for uses within Gillespie Field, specifically for airport-related support facilities and process office uses as well as special development standards. Additionally, the City of El Cajon's Noise Element of the General Plan (City of El Cajon 2001) discusses working towards consistency with SDRAA's policies and rezoning areas deemed to be inconsistent.

Airport Layout Plan

The Gillespie Field ALP was conditionally approved by the FAA on May 13, 2005, and revalidated on December 19, 2006. Among other issues, the ALP Update and Narrative Report addresses the redevelopment and conversion of the 70 acres of land to aviation use.

3.1.6.4 Analysis of Project Effects and Determination of Significance

The following thresholds for land use and planning are based on criteria provided in Appendix G of the CEQA Guidelines. No adopted County Guidelines exist for land use and planning. A significant impact would result if any of the following would occur:

1. The project would physically divide an established community.
2. The project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
3. The project would conflict with any applicable habitat conservation plan or Natural Communities Conservation Plan (NCCP).

3.1.6.5 Physical Division of an Established Community

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Physically divide an established community.

Analysis
Gillespie Field has been a part of the community operating as a general aviation airport since 1946, and its growth and development have been anticipated in the Gillespie Field Master Plan that was prepared in 1974, updated in 1986 and in 2005. The Proposed Project site is within the property boundary of the Airport, and the proposed aviation redevelopment is a component of the airport's business operations. The Proposed Project does not propose the introduction of new uses that are different from existing uses in the area and will not significantly disrupt or divide an established community. Based on these facts, impacts related to division of an established community would be *less than significant*.

3.1.6.6 Consistency with Applicable Land Use Plan, Policy, or Regulations

Guidelines for the Determination of Significance
A significant impact would occur if the project would:

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Analysis
The County's development on the Proposed Project site is not subject to general plans of City government. Accordingly, this portion of the Proposed Project is not subject to the land use plans and policies of the City of Santee or the City of El Cajon. Future private development at Gillespie Field will need to comply with the City of El Cajon plans and regulations. The following

sections evaluate the consistency of the proposed project with the applicable plans governing compatible land use.

County of San Diego General Plan

The proposed public infrastructure development at the Proposed Project site is consistent with the existing uses of the 757-acre facility. Noise regulations under the County General Plan are stricter than the noise regulations under the City of El Cajon General Plan. In compliance with the land use compatibility goals and policies, the Proposed Project will comply with the stricter regulations. The Proposed Project is consistent with the applicable goals and policies of the County of San Diego General Plan.

Airport Land Use Commission

California law (Public Utilities Code 21670.3) requires that counties which operate airports for the benefit of the general public establish ALUCs for the purposes of creating ALUCPs. The SDRAA serves as the ALUC for all of San Diego County's airports. The purpose of the ALUCP is to provide land use measures that ensure the safety and welfare of the public is protected from excessive noise and safety hazards associated with aviation by discouraging incompatible development in areas surrounding airports. For this purpose, ALUCs are charged with development of guidelines suggesting compatible land use for areas affected by aviation related noise and safety (Table 3.1.6-1).

As operators of eight of the airports in the County, the County has been in coordination with SDRAA regarding the Proposed Project and associated noise surveys. The operational forecasts, noise data, and modeling are integral components of the ALUCP for Gillespie Field. ALUCPs consider a 20-year planning period, and the forecast data in both the Gillespie Field Unconstrained Aviation Activity Forecast and the Gillespie Field Constrained Aviation Activity Forecast evaluated the operations and associated noise contours through 2027 (Ricondo & Associates, Inc. 2008a; 2008b). ALUC uses this data to develop the AIA and ALUCP which together establish the land use designations that surrounding jurisdictions are subject to adhere to. The SDRAA has considered the Proposed Project and noise data, and found the Proposed Project consistent with the SDRAA and their development of the ALUCP.

Gillespie Field Master Plan

In 1986, the County updated the 1974 Gillespie Field Master Plan. The goal of the Master Plan was to provide a guide for the expansion and redevelopment of light industrial and commercial uses at Gillespie Field that is consistent with the economic, environmental, and social goals of the community. The Master Plan divided 362 acres into seven study sites for planning purposes and then developed proposed uses for each of the sites. The Proposed Project site is located on Site 2 as identified in the Master Plan, and it is designated as commercial, open space, business park, light industrial, theme park, museum, and limited aviation uses.

In 2005, the ALP Update Narrative Report was approved by the FAA. In 2006, the FAA issued a guidance letter to the County regarding the need to convert the 70-acre site from non-aviation to aviation uses upon the expiration of the lease held on the site by the Cajon Speedway.

The Proposed Project would be consistent with the overall goal of the Master Plan as it would provide for similar uses as those found in the Master Plan.

City of El Cajon

The County public infrastructure portion of the Proposed Project is not subject to City of El Cajon plans and regulations. However, the future private development associated with the Proposed Project will need to comply with the City of El Cajon plans and regulations. The proposed uses for the 70-acre site include taxiways, runway access, infrastructure facilities, hangar spaces, aircraft tie-downs, apron area, automobile parking, aircraft maintenance space, and aviation office and business space. All of these uses are consistent with the City of El Cajon General Plan industrial land use designation and the manufacturing zone that applies to the site. The City of El Cajon General Plan also includes a Special Development Area Overlay to allow flexibility for uses within Gillespie Field, specifically for airport-related support facilities and office uses. Since future aviation uses on the Proposed Project site must conform to the requirements of the Special Development Overlay, it is not anticipated that any future developments under the Proposed Project would be in conflict with the intent of the Special Development Overlay.

All future private development at Gillespie Field would be subject to a lease agreement with the County, then discretionary approvals by the City of El Cajon. The specific uses proposed by the private developers for the 70-acre Proposed Project site will also be required to conform to the City of El Cajon zoning ordinance requirements. Accordingly, when private developers propose building and grading permit applications, the City of El Cajon shall review conformity of the proposed use with their established policies and regulations to ensure compatibility with their local land use plans and policies.

The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. Therefore, the Proposed Project would have a *less than significant impact*.

3.1.6.7 Consistency with Applicable Habitat Conservation Plan or NCCP

Guidelines for the Determination of Significance
A significant impact would occur if:

- Conflict with any applicable habitat conservation plan or NCCP

Analysis
As discussed in Chapter 2.1, Biological Resources, Gillespie Field does not currently fall under the MSCP regulatory framework. Although the site is owned by the County, it is within the jurisdictional boundaries of the City of El Cajon and City of Santee, which are not yet participants in the program. Moreover, the project site does not support coastal sage scrub or

habitats covered by the NCCP. The Proposed Project site is not subject to any other habitat or conservation planning documents. Therefore, the Proposed Project would have a *less than significant impact*.

3.1.6.8 Cumulative Impact Analysis

The Proposed Project and several of the cumulative projects listed in Table 1.2 could entail an increase in the intensity of land use on their respective sites. However, none of the projects listed in Table 1.2 results in a significant impact to land use. The Proposed Project is compatible with established land use designations and would not conflict with applicable planning policies.

Development of the Proposed Project site in association with the cumulative projects would not divide an established community. These projects are all proposed in or adjacent to areas that are already developed. Furthermore, none of these projects are of a size or nature that would have the potential to divide an established community. Therefore, no significant adverse cumulative impacts on land use are anticipated within the cumulative study area.

3.1.6.9 Conclusion

The Proposed Project would result in aviation uses being developed on a 70-acre portion of Gillespie Field that was used for non-aviation purposes, but within the footprint of the existing airport. The project does not propose the introduction of new uses that are different from existing uses in the area and will not significantly disrupt or divide an established community.

The Proposed Project would not result in a land use compatibility impact. Airport development has been anticipated with land use plans and policies including the City of El Cajon General Plan, City of Santee General Plan, and County of San Diego General Plan, Gillespie Field Master Plan, and ALUCP. The Proposed Project would be consistent with the ALUCP. The 70-acre Proposed Project site is designated for industrial uses and zoned for manufacturing by the City of El Cajon General Plan. Proposed aviation uses would be consistent with the land use designation, and future compatibility will be evaluated prior to approval of development plans as required by the discretionary review by the City of El Cajon during building and grading permit applications. Therefore, the Proposed Project would have a *less than significant impact* to land use and planning.

Table 3.1.6-1. FAA Suggested Land Use Compatibility Guidelines in Aircraft Noise Exposure Areas

Land Use	Yearly Day-Night Average Sound Level (CNEL[9]) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, Other than Mobile Homes and Transient Lodgings	Y	N[1]	N[1]	N	N	N
Mobile Home Parks	Y	N	N	N	N	N
Transient Lodgings	Y	N[1]	N[1]	N[1]	N	N
Public Use						
Schools	Y	N[1]	N[1]	N	N	N
Hospitals, Nursing Homes	Y	25	30	N	N	N
Churches, Auditoriums, and Concert Halls	Y	25	30	N	N	N
Governmental Services	Y	Y	25	30	N	N
Transportation	Y	Y	Y[2]	Y[3]	Y[4]	Y[4]
Parking	Y	Y	Y[2]	Y[3]	Y[4]	N
Commercial Use						
Offices, Business and Professional	Y	Y	25	30	N	N
Wholesale and Retail - Building Materials, Hardware, and Farm Equipment	Y	Y	Y[2]	Y[3]	Y[4]	N
Retail Trade, General	Y	Y	25	30	N	N
Utilities	Y	Y	Y[2]	Y[3]	Y[4]	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, General	Y	Y	Y[2]	Y[3]	Y[4]	N
Photographic and Optical	Y	Y	25	30	N	N
Agriculture (except livestock) and Forestry	Y	Y[6]	Y[7]	Y[8]	Y[8]	Y[8]
Livestock Farming and Breeding	Y	Y[6]	Y[7]	N	N	N
Mining and Fishing, Resource Production, and Extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor Sports Arenas and Spectator Sports	Y	Y[5]	Y[5]	N	N	N
Outdoor Music Shells, Amphitheaters	Y	N	N	N	N	N
Nature Exhibits and Zoos	Y	Y	N	N	N	N
Amusement Parks, Resorts, and Camps	Y	Y	Y	N	N	N
Golf Courses, Riding Stables, and Water Recreation	Y	Y	25	30	N	N

Notes:

1 Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

2 Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.

3 Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.

4 Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.

[5] Land use compatible provided special sound reinforcement systems are installed.
[6] Residential buildings require a NLR of 25.
[7] Residential buildings require a NLR of 30.
[8] Residential buildings not permitted.
[9] CNEL is the required noise metric within the State of California, the federally required DNL is used outside the State of California

The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses. Nursing Homes and Hospitals, Convalescent are used interchangeably throughout this analysis.

Y (Yes) Land Use and related structures compatible without restrictions.

N (No) Land Use and related structures are not compatible and should be prohibited.

NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

25, 30, 35 Land Use and related structures generally compatible; measures to achieve or NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

*Source: U.S. Department of Transportation, FAA, Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*, Code of Federal Regulations, Title 14, Chapter I, Subchapter I, Part 150, Table I, January 18, 1985, as amended.

Prepared by: Ricondo & Associates, Inc., 2008d

3.1.7 Noise

This section presents information and analysis of potential impacts from noise, and has been compiled based on a Noise Impact Analysis prepared for the Proposed Project by AECOM (AECOM 2011b), which is attached as Appendix H to this PEIR. Additional noise studies have been prepared for the Proposed Project and were utilized in the preparation of the Noise Impact Analysis prepared by AECOM. These studies include the Gillespie Field Aircraft Noise Analysis (Aircraft Noise Technical Report) prepared by Ricondo & Associates, Inc. (Ricondo 2008a) and the Noise Technical Report prepared by EIP Associates (EIP 2007). These reports are attached in Appendix H.

3.1.7.1 Existing Conditions

Noise Setting

Gillespie Field is a County-owned airport that is within the jurisdictional boundaries of the City of El Cajon. The Proposed Project site is located in the southeastern corner of the 757-acre Gillespie Field and is bound immediately on the west by Joe Crosson Drive, on the north by Airport Drive, on the east by Wing Avenue, and on the south by Floyd Smith Drive and West Bradley Avenue. The properties west of Joe Crosson Drive and north of Airport Drive are aviation-related uses, located within Gillespie Field, and include aircraft hangars, tie-downs, taxiways, and runways. Properties east of Wing Avenue are located in unincorporated San Diego County and are zoned for industrial uses (M54). Properties south of Floyd Smith Drive and Bradley Avenue are located within the City of El Cajon and are zoned for industrial uses.

Land parcels adjacent to the airport contain existing industrial and residential uses to the north (along Prospect Avenue), industrial and commercial uses to the east (along Magnolia Avenue) and to the south (along Bradley Avenue). Airport related industrial and commercial uses are located to the west of the airport. Further west and southwest of airport property, residential and other noise sensitive land uses are predominate. Farther east of the airport, across SR-67, are residential uses. The nearest school to the Proposed Project site is Chaparral High School approximately 3,000 feet west of the Proposed Project site along North Cuyamaca Street. Potential noise sensitive land uses affected by the Proposed Project include churches, a school, and residential land uses.

Noise Sources

The existing noise environment in the Proposed Project area and at nearby sensitive receptors has been characterized through observations and noise level measurements. The noise measurement locations are shown in Figure 3.1.7-1 and the results of the field noise measurements are summarized in Table 3.1.7-1. Figure 3.1.7-2 depicts the noise exposure map under 2008 existing conditions. The predominant source of noise in the Proposed Project area is vehicle traffic on local streets adjacent to the Proposed Project site, which include Bradley, Magnolia and Prospect Avenues; Cuyamaca Street; and Joe Crosson Drive. The secondary noise source in the vicinity of the Proposed Project site is aircraft operations. The existing aviation noise environment in the vicinity of Gillespie Field is characterized by occasional, random short-term noise events from aircraft landings and take-offs. Noise associated with aircraft take-offs involve aircraft taxiing to the runway, revving engines for several minutes, then

running engines down to turn 180 degrees, and revving engines again, followed by accelerated movement to the opposite end of the runway until aircraft lift is achieved. Noise levels from aircraft landing flyovers (aircraft pass over the runway without start/stop on runway) were much lower than the aircraft take-offs, since engines are revved down for landings and revved up for take-offs. The aircraft operating out of Gillespie Field are predominately private, single-engine propeller aircraft. The majority of the aircraft operations occur in the east-to-west direction.

Other noise sources in the area include operations associated with light industrial activities on surrounding properties, and vehicular traffic on other local streets. Most of the existing vehicular traffic noise is not directly attributable to operations at the Airport, but is from transient vehicles accessing local businesses or SR-67.

Noise Methodology

Existing daytime noise levels were monitored at five locations near the Proposed Project site and the surrounding vicinity on April 19, 2006, as shown in Figure 3.1.7-1. A Larson Davis Laboratories model 720 (LD-720) sound level meter was used for short-term 1-hour equivalent measurements. All measured noise levels were measured on the slow response time and "A-weighted".

"A-weighing" is a method to filter noise frequencies that are not audible to the human ear and used for measurements and standards involving the human perception of noise. As stated above, all noise levels in this analysis are A-weighted and "dBA" is understood to identify the A-weighted decibel. Additionally, average noise levels over a period of time are expressed as dBA L_{eq}, or the equivalent noise level for that period. The period of time average may be specified; for example, $L_{eq(3)}$ would be a 3 hour average. When no time period is specified, a 1-hour average is assumed.

The average of A-weighted sound levels occurring during a 24 hour period is determined in terms of the day-night noise level (DNL) and the Community Noise Equivalent Level (CNEL). The timing of noise is an important factor to consider in assessing potential noise impacts as noise levels that may be acceptable during the day may create disturbance during evening or nighttime hours. Accordingly, CNEL adds 5 dBA to the sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dBA added to the sound levels occurring between 10:00 p.m. and 7:00 a.m. DNL is similar to CNEL but does not have the evening (7:00 p.m. to 10:00 p.m.) 5 dBA penalty. DNL is typically 1 dB below CNEL.

Vehicular traffic noise levels were modeled using the Federal Highway Administration's Traffic Noise Model, version 2.5 (TNM2.5). Aircraft noise levels were modeled using the FAA's Integrated Noise Model.

Operational Noise

Traffic noise impacts were evaluated by review of traffic volume data in the Traffic Impact Study Technical Report prepared by LOS Engineering (LOS 2011), which is attached as Appendix I to this PEIR. Projected traffic noise level increases were predicted based on the traffic volume increase and standard equations for describing the relationships between traffic volumes and

noise levels. Aircraft and traffic noise data were logarithmically combined for worst-case combined noise level impact assessment.

Construction Noise

Noise impacts from construction are a function of the noise generated by equipment, the distance to and sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Noise levels from construction activities are typically considered as point sources and would drop off at a rate of -6 dBA per doubling of distance over hard site surfaces, such as streets and parking lots. The drop-off rate would be approximately -7.5 dBA per doubling of distance for soft site surfaces, such as grass fields and open terrain with vegetation.

The magnitude of construction noise impacts depends on the type of construction activity, the noise level generated by various pieces of construction equipment, the duration of the activity, and the distance between the activity and noise sensitive receivers. As shown in Table 3.1.7-2, maximum noise levels from construction equipment range from approximately 70 dBA to 90 dBA at 50 feet from the source. The noise levels vary for each type of equipment, as equipment may come in different sizes and with different engines. Construction equipment noise levels also vary as a function of the activity level or duty cycle. In a typical construction project, the loudest short-term noise levels are those of earth-moving equipment under full load, which are on the order of 85 to 90 dBA at a distance of 50 feet from the source.

Typical construction projects, with equipment moving from one point to another, work breaks, and idle time, have long-term noise averages that are lower than louder short term noise events. Additionally, due to the dynamic nature of a construction-site, noise levels are calculated from the center of the activity. For purposes of analysis of the Proposed Project, a maximum 1-hour average noise level of 75 dBA L_{eq} at a distance of 50 feet from the center of typical construction activity is assumed to occur. Noise levels of other activities, such as building erection or paving, would be less.

Sensitive Noise Receptors

Sensitive noise receptors are generally considered humans engaged in activities, or occupying land and structures that may be subject to the stress of significant interference from noise. Human activities considered noise sensitive include, but are not limited to, talking, reading, and sleeping. Land uses associated with noise sensitive human receptors include residential dwellings (including mobile homes), hotels/motels, hospitals, nursing homes, educational facilities, and libraries.

No noise sensitive land uses (NSLU) exist on-site and none are proposed to be developed as part of the Proposed Project.

3.1.7.2 Applicable Noise Regulations and Standards

Federal Regulations

FAA Standards [FAR Part 150, Section 150.21]
The FAA establishes 65 dB CNEL as the noise standard associated with aircraft noise.

Local Regulations and Standards

County of San Diego General Plan, Noise Element (Chapter 8)
The Noise Element of the County General Plan (County 2011b) establishes limitations on sound levels that may be received by NSLUs and requires that an acoustical study be prepared if it appears that sensitive receptors would be subject to noise levels of CNEL equal to 60 dBA or greater.

If the acoustical study confirms that greater than 60 dBA CNEL would be experienced, modifications that reduce the exterior noise level to less than 60 dBA CNEL and the interior noise levels to below 45 dBA CNEL must be made to the development. "Development" is defined as any physical development, and specifically includes roads and land development projects. The Noise Element includes special provisions for County road construction projects and standards for interior noise levels in rooms that are usually occupied only part of the day, such as schools and libraries.

For the purpose of determining the significance of a noise impact, calculations of noise levels cited in this report are average noise levels over a 1-hour period, and are expressed as dBA L_{eq}.

County of San Diego Noise Ordinance
The County Noise Ordinance prohibits disturbing, excessive, or offensive noise. Sound level limits are specified depending on the zoning for a particular property.

Section 36.404, General Sound Level Limits

This section of the County Noise Ordinance includes 1-hour average-sound-level limits applicable to operation (non-construction) noise sources, including traffic noise at any location on a property that is receiving the noise or at the property line of the property on which the noise is produced (Table 3.1.7-3). The applicable sound levels would be 50 dB between 7 a.m. and 10 p.m., and 45 dB between 10 p.m. and 7 a.m.

Section 36.408, Hours of Operation of Construction Equipment

This section of the County Noise Ordinance limits the hours of operation of construction equipment. Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment between 7 p.m. and 7 a.m. or on a Sunday or a holiday.

Section 36.409, Sound Level Limitations on Construction Equipment

This section of the County Noise Ordinance sets limits on the time of day and days of the week that construction can occur, and sets noise limits for construction activities. Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated that exceeds an average sound level of 75 dB for an 8-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.

Section 36.410, Sound Level Limitations on Impulsive Noise

This section of the County Noise Ordinance sets limits on high peak noise of short duration. Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum permitted sound level when measured at the boundary line of the property where the noise source is located, or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period. The maximum sound level is 82 dB for residential, village zoning, or civic use, and 85 dB for agricultural, commercial, or industrial use.

3.1.7.3 Analysis of Project Effects and Determination of Significance

The identified significance thresholds for noise impacts are based on criteria provided in the Appendix G of the CEQA Guidelines and *County Guidelines for Determining Significance* (County 2009b). A significant impact to noise would result if:

1. Project implementation would result in the exposure of any on- or off-site existing or reasonably foreseeable future NSLU to exterior or interior noise (including noise generated from the Proposed Project together with noise from roads [existing and planned Mobility Element roadways], railroads, airports, heliports, and all other noise sources) in excess of any of the following:
    a. Exterior Locations: 60 dB CNEL; or an increase of 10 dB (CNEL) over pre-existing noise.
    b. Interior Locations: 45 dB (CNEL).
2. Project implementation would generate non-construction airborne noise which, together with noise from all sources, will be in excess of the limit specified in the San Diego County Code Section 36.404 at the property line of the property on which the noise is produced or at any location that is receiving the noise.
3. Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409.
4. Impulsive noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.410.
5. Noise-sensitive land uses and vibration-sensitive land uses would be exposed to excessive ground-borne vibration or noise.

The County does not designate a threshold of significance related to changes in aircraft noise levels in the County Guidelines for Determining Significance; therefore the federal standard is applied. FAA guidance specifies that a detailed noise analysis may be required if there is a 1.5 dBA increase in CNEL in noise sensitive areas exposed to 65 dBA CNEL or greater. Use of the 1.5 CNEL threshold is consistent with noise analyses conducted for other Airport projects by the Caltrans Division of Aeronautics throughout both San Diego County and the State of California.

The 1.5 CNEL threshold is accepted here as a CEQA threshold of significance to describe significant increases of aircraft noise exposure. Under the federal standard, a 1.5 dBA CNEL increase in areas exposed to noise levels of 65 dBA DNL/CNEL or greater is considered a significant increase. When an increase of 1.5 dBA occurs within the 65 dBA DNL/CNEL and higher contour, federal criteria call for the identification of noise sensitive uses experiencing an increase of 3 dBA within the 60 to 65 dBA DNL/CNEL areas. As discussed in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures,* and FAA Order 5050.4b, *NEPA Implementing Instructions for Airport Projects,* the FAA recognizes CNEL (community noise level equivalent) as an alternative metric for California. For purposes of this study and recognized by the FAA for use in California, CNEL is used in lieu of DNL.

A significant impact from (aircraft) noise would occur if the project would:

6. Cause noise sensitive areas located at or above DNL 65 dB to experience a noise increase of at least 1.5 dB when compared to the No Project Alternative for the same timeframe. An increase from DNL 63.5 dB to DNL 65 dB over a noise sensitive area is a significant impact.

3.1.7.4 Noise Sensitive Land Uses

Guidelines for the Determination of Significance
A significant noise impact would occur if:

- Project implementation would result in the exposure of any on- or off-site existing or reasonably foreseeable future NSLU to exterior or interior noise (including noise generated from the Proposed Project together with noise from roads [existing and planned Mobility Element roadways], railroads, airports, heliports, and all other noise sources) in excess of any of the following:
    - Exterior Locations: 60 dB CNEL; or an increase of 10 dB (CNEL) over pre-existing noise.
    - Interior Locations: 45 dB (CNEL).

A significant impact from (aircraft) noise would occur if the project would:

- Cause noise sensitive areas located at or above DNL 65 dB to experience a noise increase of at least 1.5 dB when compared to the No Project Alternative for the same timeframe. An increase from DNL 63.5 dB to DNL 65 dB over a noise sensitive area is a significant impact.

Analysis

NSLU is defined as "any residence, hospital, school, hotel, resort, library, or similar facility where quiet is an important attribute of the environment" (County 2009b). Currently, no NSLU exist on-site and none are proposed to be developed as part of the Proposed Project; therefore, no noise exposure impacts would occur to on-site NSLU.

The primary off-site noise sources associated with the Proposed Project would be vehicular traffic and aircraft. According to the Traffic Report, the Proposed Project would generate 1,407 average daily trips (LOS 2011). The Proposed Project would also result in closure of Airport Drive (a private road) between Joe Crosson Drive and Wing Avenue. The closure of Airport Drive would not generate new traffic but would cause a redistribution of existing traffic (LOS 2011). The off-site NSLU of principal interest that could be affected by the noise generated from vehicular traffic and aircraft are the residential land uses to the west of North Cuyamaca Street, north of Prospect Avenue, and east of SR-67, which consist primarily of single-family residences. While there are three churches located within the vicinity of the Proposed Project site, these churches are in industrially or commercially zoned areas. Off-site impacts to these churches are not anticipated since these land uses do not include weekday activities that would be affected by traffic associated with the Proposed Project, such as school facilities. The churches are Foothills Christian Church and Christians Who Care Ministries (both located along Bradley Avenue) and the Celebration of Faith Lutheran Church (located along Magnolia Avenue). The nearest nonresidential off-site NSLU of concern in this analysis is Chaparral High School approximately 3,000 feet southwest of the Proposed Project site. Chaparral High School is used as the NSLU of primary concern for both traffic and aircraft noise.

Vehicular Traffic Noise

Vehicular traffic associated with the Proposed Project would primarily use Wing Street and Joe Crosson Drive via Floyd Smith Drive to access the project site. Traffic volumes presented in Table 3.1.7-3 were used to predict noise level increases. For purposes of this analysis, it is assumed the future vehicle mix and speeds on all study roadways would be similar to existing conditions. Predicted noise level increases associated with the Proposed Project are presented in Table 3.1.7-4.

As shown in Table 3.1.7-4, noise level increases associated with the Proposed Project would be 3 dBA or less for all locations. The Proposed Project would not result in a substantial increase in traffic noise level, i.e., 10 dBA or more. Additionally, based on the modeled noise level increase along Bradley Avenue west of Johnson Avenue, traffic noise level increases at NSLUs (i.e., Chaparral High School) would not be discernable over existing traffic noise levels. Therefore,

the Proposed Project would result in a *less than significant* traffic noise level increase at off-site NSLUs.

Aircraft Noise

Existing plus Proposed Project (upon implementation in year 2019) aircraft noise level contours are compared to the existing noise (2008) level contours in Figure 3.1.7-3. Land uses exposed to the 65-dBA CNEL contour due to the Proposed Project are shown in Figure 3.1.7-4 with a comparison of the Proposed Project noise contours to the no project condition in 2019. Based on the noise level contour associated with the Proposed Project, the Proposed Project would increase the total land area within the 65-dBA CNEL contour by approximately 40 acres, of which approximately 22 acres are located outside the boundary of Gillespie Field. However, the increase in existing noise levels to future 2019 noise levels with implementation of the Proposed Project would be less than 1.5 dBA, which would be considered a *less than significant impact* using FAA guidelines and thresholds of significance and County guidelines.

Combined Vehicular Traffic and Aircraft Off-site Noise

While CNEL is used to determine compatibility of vehicular traffic noise and aircraft noise, the actual averaging periods are not the same. Traffic CNEL is typically based on a theoretical maximum 24-hour period, while aircraft CNEL is based on a theoretical average annual operation. Additionally, the loudest traffic noise hour does not have a counterpart in aircraft noise assessment. However, for purposes of this noise assessment, the CNEL values used in the traffic and aircraft analyses are considered to be equivalent. Another consideration is the predicted location of aircraft noise level increase as compared to distribution of vehicular traffic on local streets. As shown in Figure 3.1.7-3, most of the predicted aircraft noise level increases associated with the Proposed Project would occur north and northwest of the Proposed Project site, while the majority of related vehicular traffic associated with the Proposed Project would utilize roadways south and west of the project site. Additionally, the greatest predicted traffic noise level increase would occur on roadways adjacent to the Proposed Project site. Therefore, it is unlikely that traffic and aircraft noise levels would combine. The combination of vehicular traffic and aircraft off-site noise as assessed for this analysis and the following assessment is considered conservative.

Future aircraft noise level increases were calculated using the FAA's Integrated Noise Model. These calculations were reported graphically as noise contour maps in the Ricondo Report. Based on these calculations, noise level increases associated with aircraft operations under the Proposed Project would not exceed 1.5 dBA (Ricondo 2008a). Using a conservative maximum noise level increase of 1.5 dBA CNEL due to aircraft noise and combining this increase with the predicted traffic noise levels would result in a maximum noise level increase of 5 dBA, which is less than the 10 dBA increase threshold, along the roadways identified in Table 3.1.7-5. Table 3.1.7-5 presents the combined noise levels from traffic and aircraft. Therefore, impacts to NSLUs would be *less than significant*.

3.1.7.5 Project Generated Airborne Noise

Guidelines for the Determination of Significance
A significant noise impact would occur if:

- Project implementation would generate non-construction airborne noise which, together with noise from all sources, will be in excess of the limit specified in the San Diego County Code Section 36.404 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.

Analysis
Existing zoning designations in the vicinity of the Proposed Project site include General Impact Industrial (M54) within San Diego County and General Industrial (M) within the City of El Cajon. The Proposed Project site is zoned for industrial/aviation use. The corresponding noise level limits specified in the County of San Diego Noise Ordinance are 70 dBA L_{eq} at any time of day. According to the County Noise Ordinance, the sound limit at a location on the boundary between two zoning districts, such as in this case, is the arithmetic mean of the respective limits for the two zoning districts. The City of El Cajon sets sound level limits between properties zoned for industrial uses at 75 dBA L_{eq} anytime of the day. The City of El Cajon borders the project site to the west and south. However, as the City of El Cajon has a less restrictive noise level limit, the County noise ordinance is used for determining impacts. Therefore, the 1-hour average noise limit for the Proposed Project at its western, southern, and eastern property lines is 70 dBA L_{eq} anytime. This limit would apply to mechanical equipment associated with building operation; on-site maintenance activities, including aircraft maintenance; and aircraft operations at hangars and on taxiways within the Proposed Project site.

Ground Level Aircraft Activity Noise

Principal ground-based noise-generating activities associated with the operation of the Proposed Project may include the arrival and departure of taxiing airplanes; airplane maintenance and operations at the hangars and tie-downs; the on-site operation of associated vehicles; and human activities associated with the use of the aircraft. These activities would occur in various areas of the Proposed Project site. For purposes of noise impact assessment, these activities would occur at distances as close as 75 feet north of the southern property line of the Proposed Project site and 100 feet from the western or eastern property line of the Proposed Project site.

The analysis of aircraft activity noise compared to the County noise ordinance limit at the project site is based on observations and noise level measurements of similar activities at the Ramona Airport and Fallbrook Airpark. Based on these measurements and observations, a single-engine propeller aircraft revving engines for preflight checks and taxiing to and from the runway generate noise levels of approximately 71 dBA L_{eq} at 50 feet. A noise level of 71 dBA is considered conservative for assessing aircraft noise impacts for the Proposed Project as it is unlikely aircraft operating on-site at hangars would operate their engines at maximum levels for the duration of time required for the preflight check and take-off. The entire Proposed Project

site would be paved, providing a reflective noise surface; thus, noise levels from these activities would attenuate at a rate of -6 dBA for each doubling of distance.

To quantify noise levels, the impact of ground level aircraft noise is based on three aircraft operating on-site at various locations. One aircraft would be located on the taxiway 75 feet from the southern property line and approximately 500 feet from the eastern and western boundaries; one aircraft located at a hangar on the east side of the Proposed Project site approximately 75 feet from the southern boundary and 100 feet from the eastern boundary; and one aircraft operating on the west side of the site approximately 75 feet from the southern boundary and 100 feet from the western boundary. These distances are considered conservative as aircraft could be as far as 650 feet from the eastern or western boundaries of the Proposed Project site and as far as 2,000 feet north of the southern property line. Based on the identified scenario, noise levels from aircraft operating at ground level would reach approximately 68 dBA L_{eq} at the nearest common point along the southern property line and 65 dBA L_{eq} at the nearest common point along the eastern and western property lines. These noise levels would be less than the noise ordinance limit of 70 dBA L_{eq} at the property line and beyond. Therefore, in conformance with the County noise ordinance, the operation of aircraft would be *less than significant*.

Facility Noise

Principal sources of noise at the aviation-oriented business space and hangars are likely to be mechanical equipment, such as heating, ventilating, and air conditioning (HVAC) units. At the hangars, mechanical equipment for aircraft maintenance activities would also likely be in use. The proposed hangars have not been designed, and a quantitative noise analysis is not feasible and would not be accurate at this time. However, the Proposed Project includes a design consideration that limits the sound level rating of any HVAC units to 87 dBA or less at 3 feet. This would result in a noise level of approximately 63 dBA at 50 feet and a noise level of approximately 59 dBA at 75 feet.

Aircraft maintenance activity would generate similar noise level as automotive repair activities since the equipment used and repair activities are similar and activities would occur in a fixed location. Based on measurements taken for the Los Angeles Police Headquarters project, automotive maintenance facilities generate noise levels of approximately 64 dBA L_{eq} at 50 feet (AECOM 2011b). The automotive repair facility included 10 open bays with various activities, including engine maintenance, tire repair, body repair, etc. Equipment used in these activities included compressors, air guns, impact ratchets, hand tools, and grinders. The measurements were taken approximately 100 feet from the facility doorways centered on the facility.

Based on these measured noise levels and assuming these noise sources would be at least 75 feet from the nearest property line, it is calculated the aviation-oriented businesses and hangars would generate noise levels on the order of 65 dBA at the nearest property line. This noise level is less than the noise ordinance limit at the property line of 70 dBA $L_{eq;}$ therefore, the Proposed Project is not anticipated to result in an adverse noise impact from facility operation. To verify compliance with noise ordinance limits, the County has included a design consideration that requires new aviation-oriented businesses and hangars, once designed, to provide a noise study that considers all ground level noise sources. With implementation of the identified design

considerations, facility and ground-level aircraft operation would be a *less than significant impact*.

Non-aircraft activities associated with redevelopment of the Proposed Project site would incorporate design features to reduce noise levels during operations. Private developers would be required to comply with these design features through the lease agreement. The following design features will be included in the design of facilities:

1. Prior to construction, the County will require all new aviation-oriented business space and hangars to prepare a noise analysis demonstrating compliance with County noise levels limits. The noise analysis will include all ground level noise generating sources within the Proposed Project site.
2. HVAC shall have sound level ratings of 87 dBA at 3 feet or lower. This may be achieved by either purchasing models with this rating, using sound insulation or blankets, or constructing enclosures around the equipment.
3. Orient hangar openings to the north and eliminate or minimize openings on the west, south, and east sides of the buildings to avoid or minimize transmittal of noise outside airport property.

Operational Noise Sources

Cumulative on-site noise impacts would occur if the combination of all on-site noise sources, including aircraft, mechanical equipment associated with the proposed buildings, and aircraft maintenance, would exceed the noise level limits, i.e., 70 dBA L_{eq}.

Analysis of aircraft activity noise at the Proposed Project site for a relatively noisy aircraft operation scenario at the southern portion of the site indicates these activities would generate a noise level of 68 dBA L_{eq} at the property line. Based on the implementation of identified design features, noise levels from facility operation are calculated to reach 65 dBA at the nearest property line. Based on these separate noise levels sources, the operation of aircraft and proposed facilities would result in a combined noise level of approximately 69 dBA L_{eq} at the nearest property boundary. Therefore, no adverse noise impact is anticipated due to the facility operation and ground level aircraft operation.

3.1.7.6 Construction Activities

Guidelines for the Determination of Significance
A significant construction noise impact would occur if:

- Noise generated by the construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409.
- Impulsive noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.410.

Analysis

Construction Activities

Noise impacts from construction are a function of the noise generated by equipment, the location and sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Table 3.1.7-2 presents a list of noise generation levels for various types of equipment typically used on construction projects. The list, compiled by the Federal Transit Administration (FTA), was used in this analysis to estimate construction noise (FTA 2006). The magnitude of construction noise impacts was assumed to depend on the type of construction activity, the noise level generated by various pieces of construction equipment, the duration of the activity, and the distance between the activity and noise sensitive receivers.

The Proposed Project would include a variety of construction activities in many areas of the Proposed Project site. These activities include the specific facility improvements by the County and the aviation use development by private developers. Construction would require site clearing and grubbing of vegetation; soil excavation and finish grading; placement of subgrade material, reinforcing bar, and tie-down anchors; and pouring of concrete. No building demolition, blasting, or rock breaking is anticipated. Typical construction equipment would include bulldozers, graders, front-end loaders, generators, welders, and compressors. Concrete would be brought to the site in ready-mix trucks.

The properties surrounding the Proposed Project site are all zoned industrial. Typical grading activities generate approximately 86 dBA $L_{eq}(1)$ at a distance of 50 feet from the center of the activity. Additionally, grading activities would involve the largest and likely the greatest number of pieces of equipment. The point of assessment would be 650 feet from the eastern and western site boundaries and 1,000 feet from the southern project boundary. The average construction noise level would be approximately 61 dBA L_{eq} at the eastern and western boundaries and 57 dBA L_{eq} at the southern boundary. These noise levels would be less than the 75-dBA L_{eq}(8-hour) limit of the noise ordinance.

Paving of the Proposed Project site and taxiway would generate an average noise level of 80 dBA L_{eq} at a distance of 50 feet. The effective center of paving activities would be similar to grading activities. The average noise construction noise level would be approximately 58 dBA L_{eq} at the eastern and western boundaries and 54 dBA L_{eq} at the southern boundary. These noise levels would be less than the 75-dBA $L_{eq(8\text{-hour})}$ limit of the noise ordinance.

Building construction would generally be less mobile and the center of the activity would likely be closer to adjacent site boundaries. It is assumed for purposes of this analysis that buildings would be located at similar distances as the existing hangars west of Joe Crosson Drive. Therefore, the nearest point of construction would be approximately 60 feet from the property line and the center of building construction would be approximately 250 feet from the nearest property line. Building construction would generate average noise levels of 80 dBA $L_{eq;}$; however, at the property line, the average construction noise level would be approximately 66 dBA L_{eq}. These noise levels would be less than the 75 dBA L_{eq}(8-hour) limit of the noise ordinance.

Based on the preceding analysis, construction at the Proposed Project site would be in compliance with the noise ordinance, and the impact would be *less than significant*.

While no construction impacts have been identified, the following design features should be incorporated into construction plans and construction site management practices. These will be implemented through the construction contract.

1. Staging areas for the construction equipment shall be located the farthest reasonable distance from the site southern boundary.
2. Electric power shall be provided to the construction site as soon as feasible to minimize the use of continuous operation of portable generators.
3. Stationary noise-generating devices such as generators, compressors, welders, etc. shall be positioned as far from the Proposed Project boundary as feasible.
4. All construction equipment shall have manufacturer's mufflers or better installed and in good condition.

Impulsive Noise

Even though average noise levels for the construction at the Proposed Project site would be in compliance with the County Noise Ordinance, construction noise levels would vary, and intermittent maximum noise levels of 83 dBA would likely occur at the property boundaries when activities occur near the site boundaries. These events would be prohibited during hours specified in the County Noise Ordinance, which are between 7:00 p.m. and 7:00 a.m., Monday through Saturday, and all day Sunday, and would not exceed the maximum noise level limits. However, for persons outside and within 100 feet of construction activities, these maximum noise events may be disturbing and annoying. Construction plans and construction site management practices would incorporate design features to minimize the disturbance and reduce the magnitude and frequency of the construction noise by locating construction staging areas and stationary noise-generating sources away from the site boundaries, providing electric power for construction to minimize generator use, and using equipment in good condition with manufacturer's mufflers or better. Therefore, because maximum noise level limits for impulsive noise would not be exceeded and with the incorporation of design features, the project would result in a *less than significant impact*.

3.1.7.7 Ground-borne Vibration

Guidelines for the Determination of Significance
A significant construction noise impact would occur if:

- Project implementation would expose NSLUs to ground-borne vibration or noise in excess those allowed in Table 3.1.7-6 and Table 3.1.7-7.

Analysis

The most substantial vibration source associated with this project would be construction equipment. Construction would occur within the limits stated in the County Noise Ordinance. Vibrations associated with construction activity would be considered an infrequent event and the applicable vibration and ground-borne thresholds would be 0.014 and 48 dBA, respectively. The maximum construction vibration is assumed to occur from a large dozer operating along the western, southern, or eastern property line. The nearest land use would be the Foothills Church, a Category 3 land use, which is located approximately 140 feet from the project site boundaries. The vibration level of a large dozer at a distance of 25 feet is 0.089 inches per second peak particle velocity (in/sec ppv). The ground-borne noise level is estimated at 60 dBA. Vibration is calculated by the formula, $PPVD=PPVR \times (25/D)^{1.5}$, where D is the location of interest, PPVD is the vibration at the location of interest, and PPVR is the vibration level at 25 feet. At 140 feet, the vibration of a large dozer would result in a vibration level of 0.0067 in/sec ppv and a ground-borne noise level of approximately 40 dBA. Therefore, the vibration impact associated with construction would *less than significant*.

3.1.7.8 Cumulative Impact Analysis

Traffic Noise

Existing plus cumulative traffic volumes are provided in Table 3.1.7-3 and the resultant noise increase due to cumulative projects is presented in Table 3.1.7-4. Cumulative projects would result in minor noise level increases along local roadways, i.e., less than a 0.5-dBA increase along all studied roadways. Existing plus cumulative traffic volumes with the Proposed Project are also provided in Table 3.1.7-3. Noise level increases associated with the traffic volumes are shown in Table 3.1.7-4. As shown in Table 3.1.7-4, traffic noise levels are predicted to increase less than 3 dBA along all affected roadways except Floyd Smith Drive. As previously identified, there are no NSLU located along this roadway and thus the increase along this roadway is considered *less than significant*.

Aircraft Noise

One of the 49 cumulative projects identified proposed aviation-use facilities (i.e., aircraft storage) (Map Indicator 25 in Table 1.2). The noise contour figures created for the PEIR included all 49 cumulative projects (Figure 3.1.7-3 and Figure 3.1.7-4). 2019 aircraft operations associated with the Proposed Project would result in a less than 1.5-dBA CNEL increase over the existing and no project conditions. Therefore, cumulative impacts associated with aircraft operations would result in a *less than significant impact* on surrounding NSLU.

Combined Vehicular Traffic and Cumulative Off-Site Noise

Combined cumulative off-site traffic and aircraft noise levels are presented in Table 3.1.7-5. Off-site combined noise levels would be less than 3 dBA with the exception of areas immediately surrounding the Proposed Project site along Floyd Smith Drive, Joe Crosson Drive, and Wing Avenue where noise levels are predicted to increase by 4 to 5 dBA. However, as previously

identified, there are no NSLU along these roadways; therefore, these increases are considered *less than significant*.

Construction

Substantial construction cumulative noise impacts would occur if an adjacent property would be subject to construction noise from the combination of two or more projects constructed simultaneously. A cumulative projects list is provided in Table 1.2. The nearest project considered is the hangar project (Map Indicator 25 in Table 1.2), which is within the airport property on the east side of North Marshall Avenue and approximately 1,800 feet west of the project site. While simultaneous construction with the proposed project is not anticipated. At half of this distance, noise levels would be reduced by at least 25 dBA relative to the source noise level. Therefore, the combined noise from these projects would result in a noise level of 53 dBA L_{eq} or less. Reductions due to distance and intervening structure would make the contribution of the more distant sources negligible and not considerable. Therefore, cumulatively considerable construction phase noise impacts would be *less than significant*.

3.1.7.9 Conclusions

Operation

Vehicular and aviation activities at the Proposed Project site would represent new sources of noise to nearby land uses. Based on this analysis, direct and cumulative vehicular traffic and aircraft noise activities associated with the Proposed Project would increase by less than 3 dBA at all NSLU. Noise increases greater than 3 dBA would occur along roadways surrounding the Proposed Project site; however, no NSLU are located along these roadways and these increases are not considered adverse. Therefore, noise impacts associated with the Proposed Project would be considered *less than significant*.

The operations of facilities at the Proposed Project site are required to comply with the County noise ordinance. Future private development must also comply with City of El Cajon regulations. Aircraft noise at the Proposed Project site is anticipated to result in noise levels at the property line of 68 dBA L_{eq} or less. The County noise ordinance requires that noise levels not exceed 70 dBA L_{eq} at the property line, and the noise contribution of facilities, with the use of design considerations, would not exceed the ordinance. Individual aviation businesses at the Proposed Project site would demonstrate compliance through design features that would reduce noise levels. Aviation-oriented businesses and hangar operation design considerations include: limitations on HVAC noise levels, building orientation and façade design recommendations, and a requirement to prepare a noise assessment demonstrating compliance with the noise ordinance. The noise analysis will include all noise sources, such as aircraft operation on hangar aprons and proposed taxiways. With implementation of the design features, the Proposed Project would not have a significant noise impact due to on-site operation.

Construction

Based on the analysis of proposed construction activities, the Proposed Project would not exceed general construction noise level limits identified in Section 36.409 of the County Noise Ordinance, i.e., 75 dBA $L_{eq(8\text{-}hour)}$. Additionally, the construction of the Proposed Project would generate short-term (impulsive) noise impacts that would not exceed the maximum noise level limits identified in Section 36.410 of the County Noise Ordinance. Even though no significant impact would occur, peak noise levels may be considered a nuisance or disturbing to local business owners and patrons when located outside; therefore, design features are recommended to minimize noise impacts to off-site receptors. The design features include: locating staging areas for construction equipment, including stationary noise generating sources (e.g., generators), the farthest reasonable distance from the project site boundaries, providing electrical power as early as feasible during construction, and maintaining construction equipment in good condition with manufacturer's mufflers or better.

Vibration that would occur due to construction activities would be located at sufficient distances such that the vibration generated during construction would not exceed the vibration guidelines at local receptors. Therefore, the Proposed Project would not have an adverse impact.

Table 3.1.7-1. Noise Measurement Data

Site ID*	Location	Start Time	L_{EQ} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Noise Source
1	Celebration of Faith Lutheran Church, 260 feet from Magnolia Avenue, between Kenney Street and Prospect Avenue.	10:35 a.m.	60.7	49.5	73.5	Primary: Vehicular traffic on Magnolia Avenue and in commercial parking lot. Secondary: Aircraft operations, including regular landings along the adjacent runway.
2	Town & Country Mobile Lodge, 10250 Prospect Avenue, 50 feet from Prospect Avenue near intersection with Cottonwood Avenue, near end of north-south runway.	11:15 a.m.	64.5	49.1	79.7	Primary: Vehicular traffic on Prospect Avenue. Secondary: Aircraft operations and industrial activities from adjacent uses.
3	Chaparral High School, 215 feet from Cuyamaca Street near intersection with Bradley Avenue, and Swift Lane.	12:00 p.m.	59.5	50.1	70.1	Primary: Vehicular traffic on Cuyamaca Street. Secondary: Aircraft operations and light rail operations.
4	Parking lot in front of existing aviation uses along Joe Crosson Drive, west side 15 feet from curb, across from Proposed Project site.	12:45 p.m.	56.4	46.5	76.8	Primary: Vehicular traffic on Joe Crosson Drive. Secondary: Aircraft operations, including regular take-offs and landings along the east-west runway.
5	Foothills Christian Church, 75 feet from Bradley Avenue south of intersection with Wing Avenue.	1:15 p.m.	66.8	50.8	90.5	Primary: Vehicular traffic on Bradley Avenue. Secondary: Aircraft operations and construction activities at the lot adjacent to the existing church (construction is for new church facilities).

* The Site ID corresponds to locations show in Figure 3.1.7-1
All measurements were taken on April 19, 2006, for 10 minutes.
Source: AECOM 2011b

Table 3.1.7-2. Noise Ranges of Typical Construction Equipment

Equipment	Maximum Noise Level (dBA) 50 ft from Source
All other equipment (5 HP or less)	85
Backhoe	80
Boring Jack Power Unit	80
Chain Saw	85
Compactor (ground)	80
Compressor (air)	80
Concrete Mixer Truck	85
Concrete pump	82
Concrete Saw	90
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator (25 KVA or less)	70
Generator (more than 25 KVA)	82
Grader	85
Horizontal Boring Hydraulic Jack	80
Hydra Break Ram	90
Jackhammer	85
Paver	85
Pneumatic Tools	85
Pumps	77
Scraper	85
Soil Mix Drill Rig	80
Tractor	84
Vacuum Street Sweeper	80
Vibratory Concrete Mixer	80
Welder	73

HP = horse power
KVA = kilovolt ampere
Source: FTA 2006

Table 3.1.7-3. Existing and Project Vehicular Traffic Data

Roadway	Traffic Volumes			
	Existing	Existing + Proposed Project	Cumulative Daily Volume	Existing + Cumulative + Proposed Project
Airport Drive				
Joe Crosson Dr. to Wing Ave.	908	NA[1]	0	NA
Wing Ave. to Magnolia Ave.	1,172	807	0	807
Bradley Avenue				
Cuyamaca St. to Marshall Ave.	4,526	4,864	449	5,313
Marshall Ave. to Johnson Ave.	7,393	7,815	392	8,207
Johnson Ave to Pioneer Wy./Floyd Smith Dr.	8,487	9,404	289	9,693
Floyd Smith/Pioneer to Wing Ave.	11,190	12,787	284	13,071
Wing Ave. to Magnolia Ave.	11,599	12,653	251	12,904
Magnolia Ave. to SR-67 SB Ramps	18,125	18,420	173	18,593
SR-67 SB Ramps to SR-67 NB Ramps	14,916	15,134	204	15,338
Floyd Smith Drive				
Joe Crosson Dr. to Bradley Ave.	586	1,281	0	1,281
Joe Crosson Drive				
Floyd Smith Dr. to Airport Dr.	993	1,475	0	1,475
Johnson Avenue				
Floyd Smith Dr. to Bradley Ave.	656	443	0	443
Bradley Ave. to Vernon Way	5,487	5,768	120	5,888
Magnolia Ave				
Kenney St. to Airport Dr.	9,581	9,820	370	10,190
Airport Dr. to Denny Way	8,410	9,239	370	9,609
Denny Way to Bradley Ave.	14,116	14,945	370	15,315
Pioneer Way				
Bradley Ave. to Cypress Ln.	4,451	4,465	64	4,529
Wing Avenue				
Bradley Ave. to Airport Dr.	1,446	2,242	0	2,242

[1] Proposed project would result in a closure of the segment of Airport Drive.
Source: LOS Engineering 2011

Table 3.1.7-4. Predicted Future Traffic Noise Level Increases (in dBA)

Roadway	Existing + Proposed Project	Existing + Cumulative + Proposed Project
Airport Drive		
Joe Crosson Dr. to Wing Ave.	NA	NA
Wing Ave. to Magnolia Ave.	-3	-3
Bradley Avenue		
Cuyamaca St. to Marshall Ave.	0	1
Marshall Ave. to Johnson Ave.	0	0
Johnson Ave. to Pioneer Wy./Floyd Smith Dr.	0	1
Pioneer Wy./Floyd Smith Dr. to Wing Ave.	1	1
Wing Ave. to Magnolia Ave.	0	0
Magnolia Ave. to SR-67 SB Ramps	0	0
SR-67 SB Ramps to SR-67 NB Ramps	0	0
Floyd Smith Drive		
Joe Crosson Dr. to Bradley Ave.	3	3
Joe Crosson Drive		
Floyd Smith Dr. to Airport Dr.	2	2
Johnson Avenue		
Floyd Smith Dr. to Bradley Ave.	-2	-2
Bradley Ave. to Vernon Way	0	0
Magnolia Avenue		
Kenney St. to Airport Dr.	0	0
Airport Dr. to Denny Way	0	1
Denny Way to Bradley Ave.	0	0
Pioneer Way		
Bradley Ave. to Cypress Ln.	0	0
Wing Avenue		
Bradley Ave. to Airport Dr.	2	2

Source: AECOM 2011b

Table 3.1.7-5. Combined Off-Site Traffic and Aircraft Noise Level Increases (in dBA)

Roadway	Existing + Proposed Project	Existing + Cumulative + Proposed Project
Airport Drive		
Wing Ave. to Magnolia Ave.	-1	-1
Bradley Avenue		
Cuyamaca St. to Marshall Ave.	2	2
Marshall Ave. to Johnson Ave.	2	2
Johnson Ave. to Pioneer Wy./Floyd Smith Dr.	2	2
Pioneer Wy./Floyd Smith Dr. to Wing Ave.	2	2
Wing Ave. to Magnolia Ave.	2	2
Magnolia Ave. to SR-67 SB Ramps	2	2
SR-67	2	2
Floyd Smith Drive		
Joe Crosson Dr. to Bradley Ave.	5	5
Joe Crosson Drive		
Floyd Smith Dr. to Airport Dr.	3	3
Johnson Avenue		
Floyd Smith Dr. to Bradley Ave.	0	0
Bradley Ave. to Vernon Wy.	2	2
Magnolia Avenue		
Kenney St. to Airport Dr.	2	2
Airport Dr. to Denny Wy..	2	2
Denny Wy. to Bradley Ave.	2	2
Pioneer Way		
Bradley Ave. to Cypress Wy.	2	2
Wing Avenue		
Bradley Ave. to Airport Dr.	3	3
Source: AECOM 2011b		

Table 3.1.7-6. Guidelines for Determining the Significance of Ground-borne Vibration and Noise Impacts

Land Use Category	Ground-Borne Vibration Impact Levels (inches/secs rms)		Ground-Borne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent Events [1]	Occasional or Infrequent Events [2]	Frequent Events [1]	Occasional or Infrequent Events [2]
Category 1: Buildings where low ambient vibration is essential for interior operations. (research & manufacturing facilities with special vibration constraints)	0.0018 [3]	0.0018 [3]	Not applicable [5]	Not applicable [5]
Category 2: Residences and buildings where people normally sleep. (hotels, hospitals, residences, & other sleeping facilities)	0.0040	0.010	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use. (schools, churches, libraries, other institutions, & quiet offices)	0.0056	0.014	40 dBA	48 dBA

Notes:

1. "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
2. "Occasional or Infrequent Events" are defined as fewer than 70 vibration events per day. This combined category includes most commuter rail systems.
3. 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.
4. Vibration-sensitive equipment is not sensitive to ground-borne noise.
5. 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. Table 5 gives criteria for acceptable levels of ground-borne vibration and noise for these various types of special uses
6. For Categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the peak particle velocity (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. More specific criteria for structures and potential annoyance were developed by Caltrans (2004) and will be used to evaluate these continuous or transient sources in San Diego County.

Source: County 2009

Table 3.1.7-7. Guidelines for Determining the Significance of Ground-Borne Vibration and Noise Impacts for Special Buildings

Land Use Category	Ground-Borne Vibration Impact Levels (inches/secs rms)		Ground-Borne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent Events [1]	Occasional or Infrequent Events [2]	Frequent Events [1]	Occasional or Infrequent Events [2]
Concert Halls, TV Studios, and Recording Studios	0.0018	0.0018	25dBA	25dBA
Auditoriums	0.0040	0.010	30 dBA	38 dBA
Theaters	0.0040	0.010	35 dBA	43 dBA

Notes:
1. "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
2. "Occasional or Infrequent Events" are defined as fewer than 70 vibration events per day. This combined category includes most commuter rail systems.
3. If the building will rarely be occupied when the trains are operating, there is no need to consider impact.
4. For historic buildings and ruins, the allowable upper limit for continuous vibration to structures is identified to be 0.056 inches/second rms. Transient conditions (single-event) would be limited to approximately twice the continuous acceptable value.

Source: County 2009

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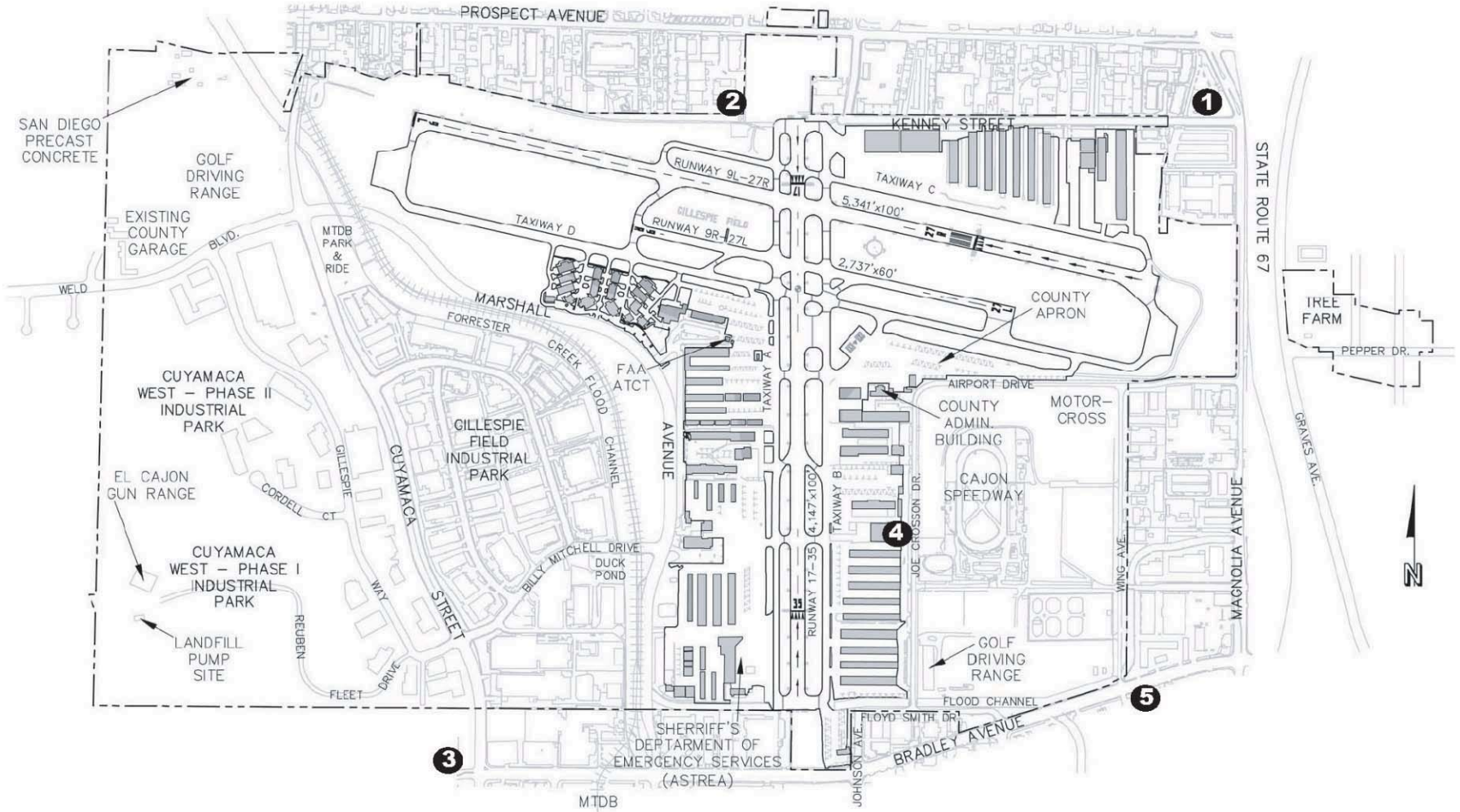

Noise Measurements Locations

Figure 3.1.7-1

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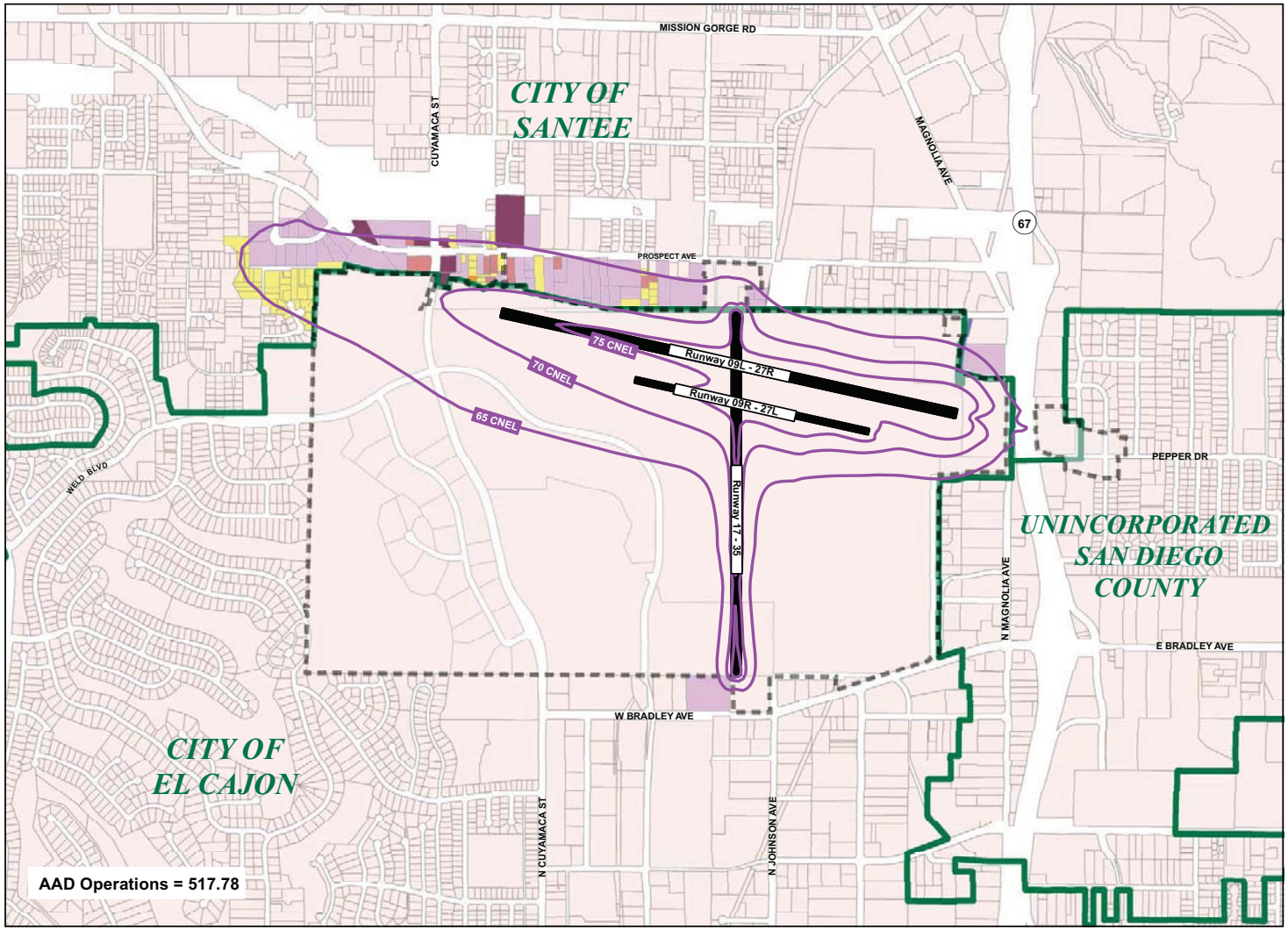

Sources: SANGIS, SANDAG 2008, 2008 Parcel Data (Accessed August 2008), INM Model: Version 7.0; INM Contour Layer: 08ctr3Noise-Contours and Ricondo & Associates, Inc., 2008
Prepared by: Ricondo & Associates, Inc., September 2008

2008 CNEL Aircraft Noise Exposure Area

Figure 3.1.7-2

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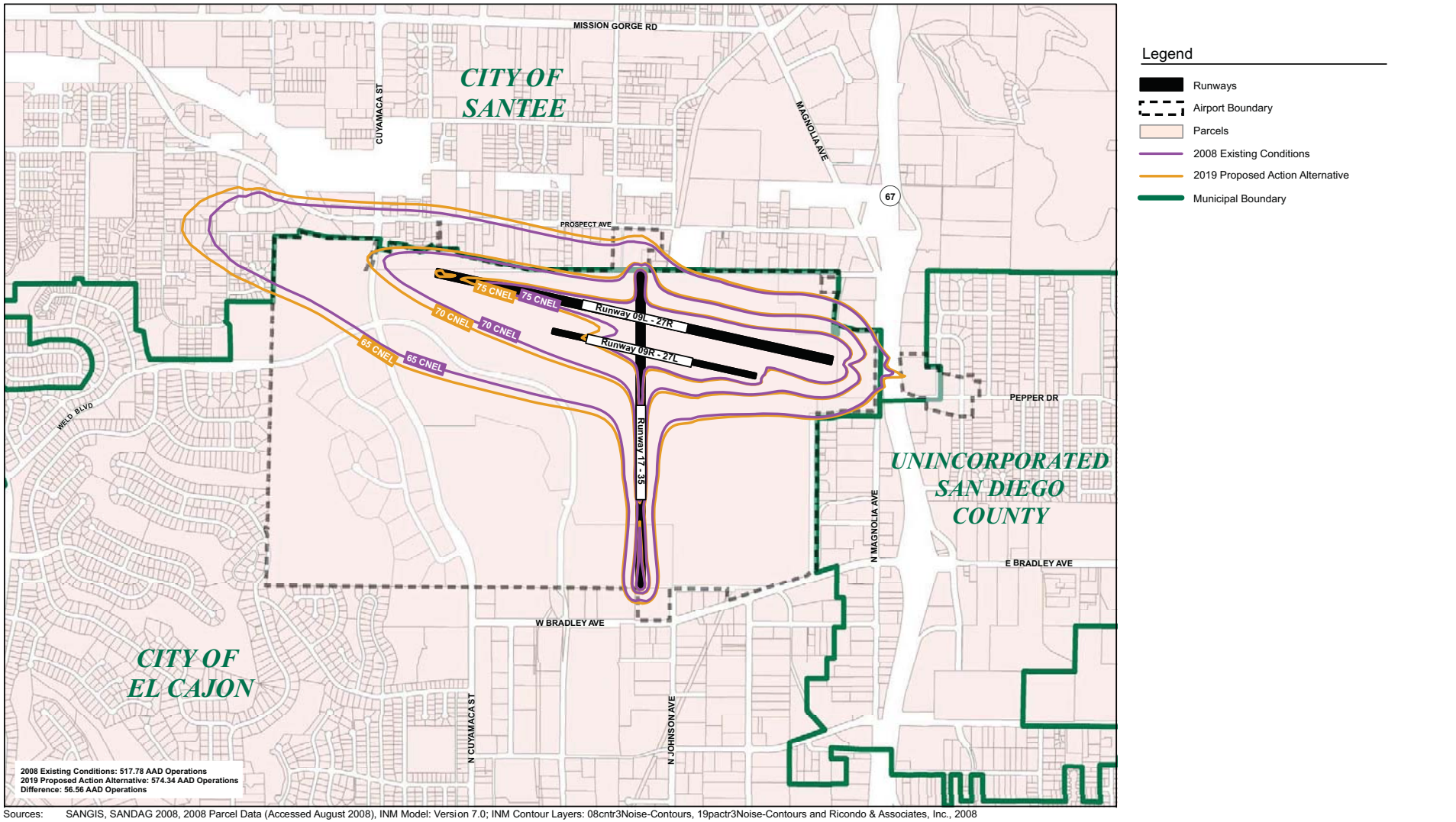

Sources: SANGIS, SANDAG 2008, 2008 Parcel Data (Accessed August 2008), INM Model: Version 7.0; INM Contour Layers: 08cntr3Noise-Contours, 19pactr3Noise-Contours and Ricondo & Associates, Inc., 2008

Prepared by: Ricondo & Associates, Inc., September 2008

2008 Existing vs. 2019 Proposed Project - CNEL Aircraft Noise Exposure Areas

Figure 3.1.7-3

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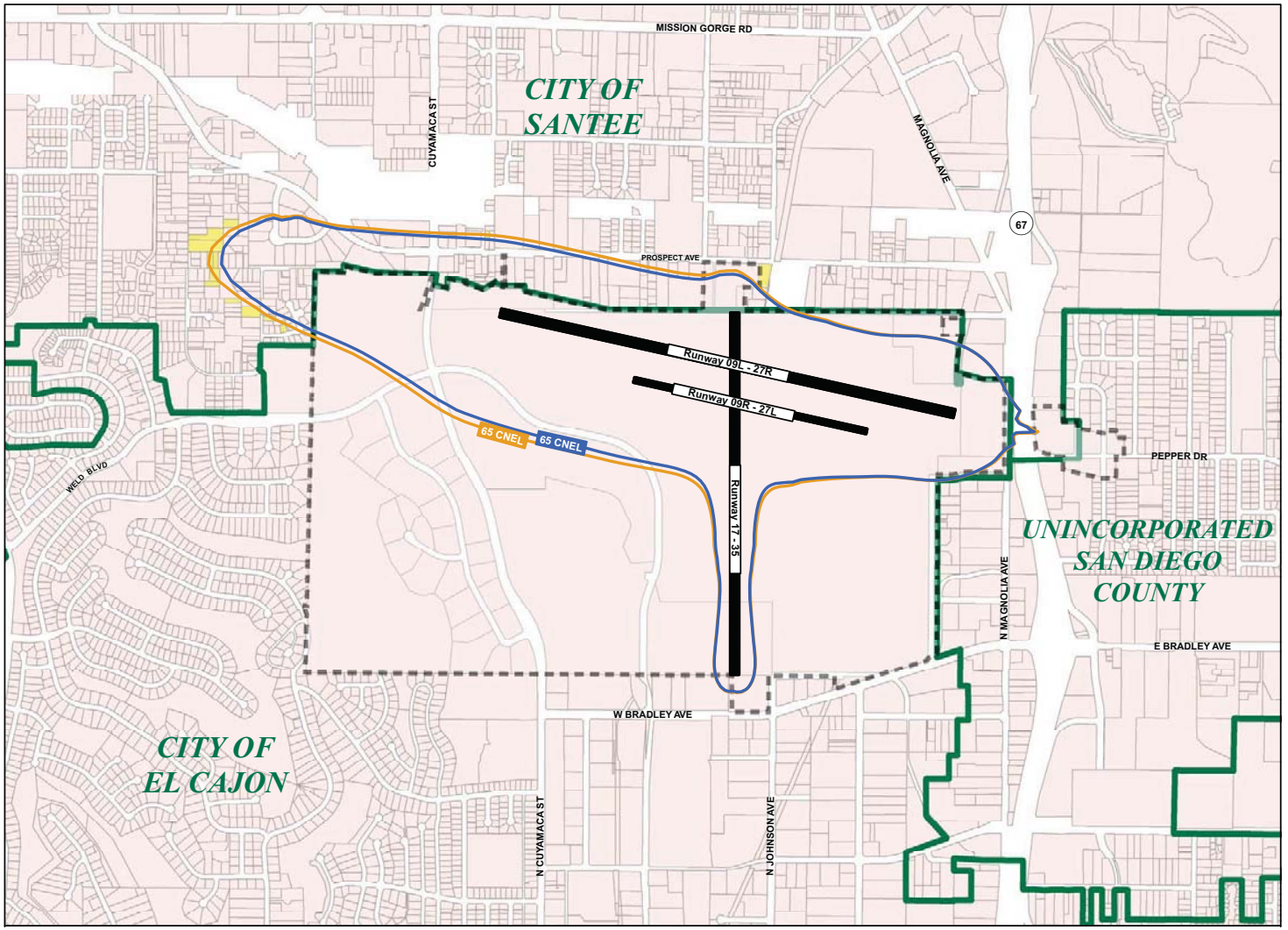

Sources: SANGIS, SANDAG 2008, 2008 Parcel Data (Accessed August 2008), INM Model: Version 7.0; INM Contour Layers: 19na3Noise-Contours, 19pactr3Noise-Contours and Ricondo & Associates, Inc., 2008
Prepared by: Ricondo & Associates, Inc., September 2008

0 1250 ft.

north

2019 With and Without Proposed Project - CNEL Aircraft Noise Exposure Areas

Figure 3.1.7-4

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3.1.8 Public Services

This section considers potential impacts on public services that may result from project implementation. Service availability letters for public services will be obtained for all future private development at Gillespie Field.

3.1.8.1 Existing Conditions

Fire Protection
The Proposed Project site is within the boundary of the City of El Cajon and under the jurisdiction of the El Cajon Fire Department. The Proposed Project site would be served by El Cajon's Station 9 (1301 North Marshall) and, because of a mutual aid agreement, Santee's Station 4 (8950 Cottonwood). Both stations have an approximate response time of three minutes for all emergency calls. All dwelling units and structures within this jurisdiction are adequately served by this response time. The City of El Cajon Fire Department also provides protection to the industrial park and non-aviation use parcels within the airport property.

Police Protection
Police protection is provided by the City of El Cajon's Police Department as a result of an agreement between the City of El Cajon and the County. Police services have been secured through the year 2021. The El Cajon Police Department Headquarters is located at 100 Fletcher Parkway, approximately 1.5 miles south of Gillespie Field. The City of El Cajon Police Department provides County Airports with patrol services, speed monitoring, alarm response and other services. Arrival time for Priority 1 calls in the project area fall within an average of 5 minutes. The actual time is dependent on traffic conditions, weather conditions, and accessibility to the affected area. The overall response time for service calls is approximately 19 minutes.

Schools
There are three schools located less than one mile from the Proposed Project site. The two closest schools are Chaparral High School and Phoenix High School of the Grossmont Union High School District, which are both special high school programs co-located less than one mile to the southwest of the Proposed Project site. Pepper Drive School (K-8) of the Santee School District is located less than one mile to the northeast of the project site. These schools are currently operating at capacity, and the district does not have room to increase its student population.

Parks
There are no existing designated Parks or other recreational facilities within the project site. The nearest existing designated Parks or other recreation facilities are Hillside Park, located approximately 1 mile south of the project site in the City of El Cajon, and Shadow Hill Park, located approximately 1 mile to the north in the City of Santee.

3.1.8.2 Analysis of Project Effects and Determination of Significance

The following significance thresholds for public services are based on Appendix G of the CEQA Guidelines. No adopted County Guidelines for Determining Significance exist for public services. A significant impact would result if any of the following would occur:

1. The project would result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    a. Fire protection
    b. Police protection
    c. Schools
    d. Parks
    e. Other Public facilities

3.1.8.3 Fire Protection

Guidelines for Determination of Significance
A significant impact to public services would occur if the project would:

- Have an effect upon, or result in a need for, new or altered fire services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing fire service facilities and infrastructure such that significant adverse physical effects to the environment would occur.

Analysis
The availability of equipment and manpower for emergencies at Gillespie Field is ample due to a mutual automatic aid agreement with El Cajon's Station 9 (1301 North Marshall) and Santee's Station 4 (8950 Cottonwood). This agreement allows the El Cajon Fire Department (ECFD) to call on other resources when needed without incurring costs. Mutual aid, when requested, would then be provided by the Santee Fire Department. According to the El Cajon Fire Department, the Proposed Project presents no impact on response times for emergency calls (Jensen). Also, based on information provided from the El Cajon Fire Department, development of the Proposed Project site would cause a slight increase in demand for fire and emergency services; however, this increase is not anticipated to present a need for new or altered fire protection facilities due to the mutual automatic aid agreement with the City of Santee. Therefore, impacts would be *less than significant*.

3.1.8.4 Police Protection

Guidelines for Determination of Significance
A significant impact to public services would occur if the project would:

- Have an effect upon, or result in a need for, new or altered police services or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing police service facilities and infrastructure such that significant adverse physical effects to the environment would occur.

Analysis
The Proposed Project at Gillespie Field could place additional demands on the police department; however, based on communication with the El Cajon Police Department, the Proposed Project is expected to have a minimal impact on police services. In addition, the agreement for police services between the City of El Cajon and County Airports is secured through the year 2021. The minimal increase in demand for police protection from the City of El Cajon is not expected to present a need for new or altered police protection facilities. Therefore, impacts would be *less than significant*.

3.1.8.5 Schools

Guidelines for Determination of Significance
A significant impact to schools would occur if the project would:

- Have an effect upon, or result in a need for, new or altered school facilities or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing school facilities and infrastructure such that significant adverse physical effects to environment would occur.

Analysis
The Proposed Project is not expected to result in the generation of additional students to nearby schools as it is an aeronautical development, as opposed to a residential development. The Proposed Project is not expected to affect population growth and would not result in a significant impact related to the need for new or altered school facilities. Therefore, impacts would be *less than significant*.

3.1.8.6 Parks

Guidelines for Determination of Significance
A significant impact to parks would occur if the project would:

- Have an effect upon, or result in a need for, new or altered park facilities or infrastructure that would result in an adverse physical effect to the environment that would be considered significant.

- Substantially exacerbate the performance levels of existing park facilities and infrastructure such that significant adverse physical effects to environment would occur.

Analysis
The Proposed Project is not expected to increase the use of existing neighborhood, regional parks or other recreational facilities. Nor does it require construction or expansion of facilities which could have an adverse physical affect on the environment. Therefore, impacts would be *less than significant.*

3.1.8.7 Other Public Services

Guidelines for Determination of Significance
A significant impact to parks would occur if the project would:

- Have an effect upon, or result in a need for, new or altered public services or infrastructure not covered above that would result in an adverse physical effect to the environment that would be considered significant.
- Substantially exacerbate the performance levels of existing public facilities and infrastructure not covered above such that significant adverse physical effects to environment would occur.

Analysis
There are no other public services, facilities, or infrastructure anticipated to be required or impacted due to construction and operation of the Proposed Project.

3.1.8.8 Cumulative Impact Analysis

Three projects located within the cumulative study area listed in Table 1.2 were determined to result in significant impacts to public services; however, all agencies providing service to the project have indicated that services and facilities are available to adequately serve the Proposed Project site and cumulative projects and no significant impacts related to public services were identified. The existing level of service is adequate to serve the Proposed Project and the project does not contribute to a significant demand for additional services or require an increase in personnel or facilities for service agencies. As such, the project does not contribute to a cumulatively considerable impact on public services.

3.1.8.9 Conclusion

The Proposed Project is not anticipated to present a need for new or altered fire protection facilities, and would minimally increase demand for police protection from the City of El Cajon. Additionally, the Proposed Project is not expected to present a need for new or altered police protection facilities and is not expected to result in the generation of additional students to nearby schools nor is expected to affect population growth. Therefore, the Proposed Project would not result in significant impacts to public services.

3.1.9 Utilities and Service Systems

This section considers impacts to utilities and service systems that may result from project implementation. Service availability letters for utilities and service systems will be obtained for all future private development at Gillespie Field.

3.1.9.1 Existing Conditions

Wastewater Treatment
Wastewater treatment for the Proposed Project site is provided by the City of El Cajon via sewer lines that flow into a 33-inch outfall sewer main. An 8-inch sewer line runs from the existing terminal area on Gillespie Field to a 15-inch sewer line underneath Marshall Avenue, which connects to the outfall sewer main. The Proposed Project site is currently served by an 8-inch sewer line that flows west under Runway 17-35 and connects to the 15-inch sewer main under Marshall Avenue. The City of El Cajon's sewer system capacity is 10.6 million gallons per day (mgd); demand is currently below capacity at 9 mgd (Griswald).

Water Supply
The City of El Cajon, Helix Water District, and the Padre Dam Municipal Water District provide existing water lines at Gillespie Field. The following water lines/mains are located within the project vicinity:

- 14-inch water line that runs along Kenney Street and across the airfield to Joe Crosson Drive
- 14-inch and a 12-inch water line underneath Marshall Avenue
- 68-inch City of San Diego water main and a 48-inch Helix Water District main located in a 50-foot wide easement running diagonally through the 70-acre site
- 14-inch water line in Joe Crosson Drive from Floyd Smith Drive to Airport Drive, that continues north to Kenny Street, across taxiways and Runways 27 Left and Right
- 6-inch water line from Floyd Smith Drive to Airport Drive.

The Proposed Project site lies within the Padre Dam Municipal Water District (PDMWD) service area. The PDMWD obtains its water from the San Diego Water Authority. The Proposed Project would be serviced by the existing water lines in the project area.

Solid Waste Capacity
Waste Management, Inc. provides solid waste services for the Cities of El Cajon and Santee. Waste Management provides curbside collection, refuse disposal, curbside recycling, yard waste collection, and public education. Waste Management implements programs necessary to meet the state mandated 50 percent waste reduction goal mandated by AB 939. Solid waste generated by Gillespie Field, and the Proposed Project, would be hauled to either the Sycamore Sanitary Landfill or the Otay Landfill, which are owned and operated by Allied Waste Industries. The Sycamore Landfill is the closest landfill to the site and is located off of SR-52 at Mast Boulevard, about five miles west of the project site. The landfill has a maximum permitted

capacity of 3,965 tons per day and an estimated remaining capacity of approximately 85 percent. The Otay Landfill is located approximately 15 miles south of the site, off of Otay Valley Road, about one mile east of the Interstate 805 (I-805)/Otay Valley Road interchange in the City of Chula Vista. The landfill's permitted maximum disposal is 5,000 tons per day, and has an estimated remaining capacity of approximately 69 percent.

Utilities

San Diego Gas and Electric (SDG&E) provides electricity and gas to Gillespie Field by overhead and underground lines to the existing terminal area, airfield, and Airport Traffic Control Tower. Electricity is currently provided to the industrial park and the Proposed Project site by overhead lines only.

3.1.9.2 Analysis of Project Effects and Determination of Significance

The following significance thresholds for utilities and service systems are based on Appendix G of the CEQA Guidelines. No adopted County Guidelines for Determining Significance exist for utilities and service systems. A significant impact would result if any of the following would occur:

1. The project would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. The project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. The project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
4. The project would not have sufficient water supplies available to serve the project from existing entitlements and resources and would need new or expanded entitlements.
5. The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitment.
6. The project would be unable to be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
7. The project would not comply with federal, state, and local statutes and regulations related to solid waste.

3.1.9.3 Wastewater

Guidelines for the Determination of Significance
A significant impact to wastewater would occur if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitment.

Analysis
Implementation of the Proposed Project would not have an adverse impact on existing or planned sewer facilities. There is sufficient capacity in the existing sewer lines provided by the City of El Cajon to accommodate the demand on sewer facilities that would be presented by redevelopment of the 70-acre site (Griswald). The Proposed Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

As the Proposed Project is analyzed at the program-level, it would be the responsibility and obligation of private developers, who would construct the proposed facilities, to ensure compliance with the applicable wastewater treatment requirements and to obtain approval of the Waste Discharge Requirements as set forth by the San Diego Regional Water Quality Control Board. Existing wastewater lines would be required to comply with the wastewater treatment provider. Therefore, the impacts to wastewater from the Proposed Project would be *less than significant*.

3.1.9.4 Storm Water

Guidelines for the Determination of Significance
A significant impact to storm water would occur if the project would:

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

Analysis
The Proposed Project would not contribute to cumulative flooding or impacts to storm water drainage systems. The LID IMPs will provide a reduction in storm water runoff rates to achieve no net increase in flow rates discharged from the project site. A Master Grading Plan and a storm water detention system plan would be prepared to address drainage improvements required to accommodate increases in runoff. The storm water detention system plan will also identify required on-site storm water detention facilities and storm water drainage inlets and outlets required to handle the estimated volume of 100-year flows at the site. Therefore, the Proposed Project would result in *less than significant* impacts to storm water facilities.

3.1.9.5 Water Supply

Guidelines for the Determination of Significance
A significant utilities and service systems impact would occur if the project would:

- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

Analysis
Water service for the Proposed Project site would be provided by PDMWD using the existing water lines in Joe Crosson Drive (Weston). If Joe Crosson Drive were to be closed to through public traffic for future projects, then PDMWD would require an easement for access, maintenance, and repairs of waterlines. The project would not require or result in the construction of new water lines. Water use associated with the Proposed Project is not expected to increase substantially or exceed the service capacity of PDMWD. Therefore, impacts would be *less than significant*.

3.1.9.6 Solid Waste Capacity

Guidelines for the Determination of Significance
A significant utilities and service systems impact would occur if the project would:

- Be unable to be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Analysis
It has been determined that the Proposed Project would not have a significant impact on landfills near the Proposed Project site (Lewis). The Proposed Project is within an urban area, is adjacent to similar industrial and commercial development in El Cajon, and is not expected to deviate from the growth projections for the area that have been used to determine the usable life of landfill facilities. Therefore, the impacts would be *less than significant*.

3.1.9.7 Cumulative Impact Analysis

Three projects located within the cumulative study area listed in Table 1.2 were determined to result in significant impacts to utilities; however, all agencies providing service to the Proposed Project and cumulative projects have indicated that services and facilities are available to adequately serve the Proposed Project site and no significant impacts related to utilities were identified. The existing level of service is adequate to serve the Proposed Project site and the project is not considered to contribute to a significant demand for additional services or require an increase in personnel or facilities for service agencies. As such, the project would not contribute to a cumulatively considerable impact on utilities.

3.1.9.8 Conclusions

The Proposed Project would not result in significant impacts to public services and utilities. Existing sewer lines provided by the City of El Cajon have sufficient capacity to accommodate the demand on sewer facilities that would be presented by the Proposed Project. Moreover, the Proposed Project would not require the construction of new storm water drainage facilities or expansion of existing facilities as there is sufficient capacity in existing storm water drainage facilities. Water use at the Proposed Project site is not expected to increase substantially to require the construction of new water lines. The Proposed Project would not have a significant impact on landfills and is not expected to deviate from the growth projections for the area that have been used to determine the usable life of landfill facilities.

3.2 Effects Found Not Significant During Initial Study

The following environmental issue areas were determined not significant during the Environmental Initial Study: Agriculture, Geology and Soils, Mineral Resources, Population and Housing, and Recreation. The Environmental Initial Study has been included with the NOP as Appendix A to this PEIR.

CHAPTER 4 PROJECT ALTERNATIVES

This section implements the requirements set forth in CEQA Guidelines Section 15126.6 regarding analysis of alternatives in EIRs. Section 15126.6 calls for analysis of a range of reasonable alternatives considering the "rule of reason." As applied to selection and analysis of project alternatives, the "rule of reason" means that an EIR need consider only those alternatives necessary to permit a reasoned choice. An EIR need not consider every feasible alternative. Alternatives should be limited to those that meet most of the basic project objectives, are feasible, and would avoid or substantially reduce at least one of the significant effects of the project. The discussion of alternatives in this PEIR satisfies those requirements.

CEQA also requires consideration of a "No Project Alternative" and identification of the environmentally superior alternative from among the project alternatives. If the No Project Alternative is the environmentally superior alternative, the EIR needs to identify an environmentally superior alternative from among the other alternatives. The discussion of alternatives in the PEIR satisfies those requirements.

4.1 Rationale for Alternative Selection

4.1.1 Alternatives Selected for Evaluation

The State CEQA Guidelines require that analysis of a No Project Alternative be included in all EIRs. The No Project Alternative assumes that there would be no development that would change the existing conditions of the project site as described in this PEIR. The Reduced Project Alternative considers a reduced development footprint (66.9 acres) on the project site to avoid impacts to San Diego ambrosia. The Further Reduced Footprint Alternative considers an even further reduced development footprint (36.5 acres) on the project site that would only develop the eastern portion of the site and also avoid impacts to San Diego ambrosia.

The process of identifying potential alternatives involves analyzing the project objectives as identified in Section 1.1 of this PEIR, and includes input received during public review of the 2009 Initial Study and during the PEIR NOP process (Appendix A). Reducing impacts to biological resources, hazards and hazardous materials, and traffic were the primary environmental issues considered in the selection of alternatives.

The three alternatives selected for evaluation represent a reasonable range of alternatives that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Table 4.1 provides a comparison between the impacts of the Proposed Project and each alternative with regard to the potentially significant project impacts to biological resources, hazards and hazardous materials, and traffic.

4.1.2 Alternatives Rejected as Infeasible

Off-site alternatives for development of the proposed aviation uses were not considered as per the federal grant assurances, and FAA guidance states that the County is "obligated to redevelop the area [70-acre site] for aeronautical activities" (FAA 2005). In addition, off-site

alternatives were determined to be impractical, if not infeasible, as the proximity and connectivity between the project site and the airport runways is critical for development of aviation uses including aircraft storage.

4.2 Analysis of the No Project Alternative

4.2.1 No Project Alternative Description and Setting

This No Project Alternative is analyzed within this PEIR as required under CEQA Guidelines Section 15126.6(e). When the project is something other than a land use or regulatory plan, such as a development project on an identifiable property, the No Project Alternative is considered the "…circumstance under which the project does not proceed" and includes a discussion of the environmental effects associated with the property remaining in its existing condition. However, "[i]f disapproval of the project under consideration would result in predictable action by others, such as the proposal of some other project, this 'no project' consequence should be discussed. (CEQA Guidelines Section 15126.6(e)(3)(B)).

Under the No Project Alternative, the existing conditions on the Proposed Project site would remain unchanged into the reasonably foreseeable future. The 70-acre site would not be developed with aviation uses and would remain vacant as described in Section 1.4.2 of this PEIR.

The No Project Alternative would not achieve the project objectives identified in Section 1.1 of the PEIR of meeting the existing unmet and forecast market demand for based aircraft storage facilities, complying with federal grant assurances by maintaining the highest and best use of airport properties, and promoting general aviation and attracting new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset.

The No Project Alternative provides a benchmark, enabling decision makers to compare the magnitude of environmental effects of the action alternatives. Although the No Project Alternative does not satisfy the Proposed Project's objectives, its inclusion in the PEIR is intended as a basis for comparison with the Proposed Project and other reasonable alternatives. A comparison of the potentially significant environmental effects of this alternative follows.

4.2.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

4.2.2.1 Biological Resources

Under the No Project Alternative, redevelopment of the Proposed Project site would not occur. The 70-acre site would remain vacant, and the existing mitigation site for the San Diego ambrosia would remain in place. Therefore, there would be no impacts to the 0.18 acres of San Diego ambrosia and 1.1 acres of non-native grassland. Therefore, none of the impacts to biological resources associated with the Proposed Project would occur. The No Project Alternative would provide a substantial advantage in terms of impact avoidance.

4.2.2.2 Hazards and Hazardous Materials

Under the No Project Alternative, no development would occur. The Proposed Project would remain vacant. Therefore, none of the potential impacts related to hazards and hazardous materials would occur with the selection of the No Project Alternative. This alternative would provide a substantial advantage in terms of impact avoidance.

4.2.2.3 Transportation and Traffic

Under the No Project Alternative, the Proposed Project site would not be developed and no construction or improvements that could increase traffic would occur. Therefore, the No Project Alternative would provide a substantial advantage in terms of impact avoidance.

4.3 Analysis of the 66.9-Acre Reduced Footprint Project Alternative

4.3.1 Reduced Footprint Project Alternative Description and Setting

The Reduced Footprint Project Alternative (66.9-acre) would redevelop 66.9 acres of the 70-acre site. Of the 66.9 acres, the County would develop approximately 15 acres of the site for infrastructure improvements (i.e., new taxiways, apron area, drainage facilities, and utility facilities) (Figure 4-1). The remaining 51.9 acres would be dedicated for future improvements to be completed by private developers, which may include: rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space. The existing 1.1 acres of San Diego ambrosia would be avoided and surrounded by a 100-foot softscape buffer (2.0 acres).

The Reduced Footprint Project Alternative would meet the following project objectives to a lesser extent than the Proposed Project:

- To meet the existing unmet and forecast market demand for based aircraft storage facilities to avoid constraining Airport operations.
- To promote general aviation and attract new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset to the County and the surrounding communities.

Aviation forecasting data demonstrates an unmet demand for based aircraft facilities in both short-term and long-term planning. The analysis illustrates that the existing available aeronautical use acreage (144 acres) for based aircraft parking (aircraft storage) at Gillespie Field is nearing maximum capacity and is identified as a critical constraint at the Airport. Additionally, the County has been directed by the FAA to develop the 70-acre site for aviation uses in accordance with the "highest and best use" for the property (FAA 2005). The Reduced Footprint Project Alternative would not only restrict the construction of necessary facility improvements on the Proposed Project site, but will hinder the Airport's ability to operate at its full potential.

In addition, the Reduced Footprint Project Alternative would not be suitable for the engineering design and operation of future uses on the Proposed Project site. Excluding the 1.1-acre for San Diego ambrosia from the redevelopment of the Proposed Project site would potentially pose a safety hazard in the movement of people, vehicles, and aircrafts on-site. The full utilization of the 70-acre site would minimize vehicle-aircraft conflicts and ensure safe, unimpeded movement across the western portion of the project site. Additionally, the County would ensure the continued survival of the San Diego ambrosia offsite through transplantation from the 70-acre site to a site of higher biological value under the purview of USFWS.

The Reduced Footprint Project Alternative would also not fully promote general aviation and attract new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset to the County and the surrounding communities. This objective would not be fully achieved through the Reduced Footprint Project Alternative as only a portion of the 70-acre site would be developed, thereby reducing the potential to generate maximum revenues to the Airport Enterprise Fund. Revenue generation is critical to the ongoing maintenance and operation of the Gillespie Field Airport.

The Reduced Footprint Project Alternative would meet the project objectives to a lesser extent than the Proposed Project. A comparison of the environmental effects of this alternative follows.

4.3.2 Comparison of the Effects of the Reduced Footprint Project Alternative to the Proposed Project

4.3.2.1 Biological Resources

Under the Reduced Footprint Project Alternative, direct impacts to the 0.18 acre of San Diego ambrosia and 1.1 acres of non-native grassland would be avoided, and the species would be surrounded by a 100-foot softscape buffer. Therefore, the Reduced Footprint Project Alternative would provide a substantial advantage in terms of impact avoidance.

4.3.2.2 Hazards and Hazardous Materials

The Reduced Footprint Project Alternative consists of developing 66.9 acres (15 acres of infrastructure improvements and 51.9 acres of land available for aviation development by private developers) while preserving 3.1 acres (1.1-acre fenced area containing San Diego ambrosia with a 100-ft softscape buffer of 2 acres) (Figure 4-1). Impacts to hazards and hazardous materials resulting from the Reduced Footprint Project Alternative, and associated mitigation measures, would be identical to those listed above for the Proposed Project. Therefore, the Reduced Footprint Project Alternative would provide no advantage in terms of impact avoidance or reduction.

4.3.2.3 Transportation and Traffic

The Reduced Footprint Project Alternative consists of development of 66.9 acres (15 acres of infrastructure improvements and 51.9 acres of aviation-use development) while preserving 3.1 acres (1.1 acres of San Diego ambrosia with 100-ft softscape buffer of 2 acres). The Reduced Footprint Project Alternative would include the same type of facilities improvements as the

Proposed Project, including the installation of a taxiway, apron area, drainage facilities, and utility facilities as well as aviation-use development.

The Reduced Footprint Project Alternative is calculated to generate proportionally less traffic with 1,327 ADT, 96 AM peak hour trips, and 105 PM peak hour trips in comparison to the Proposed Project that is calculated to generate 1,407 ADT, 102 AM peak hour trips, and 111 PM peak hour trips. The Reduced Footprint Project Alternative would result in 80 less ADT than the Proposed Project due to the reduction of 3.1 acres of proposed hangar areas. However, an existing roadway and intersection, as identified in Chapter 2.3, would continue to operate at LOS E, and the traffic added by the Reduced Footprint Project Alternative would still exceed County thresholds for significance. Therefore, the Reduced Footprint Project Alternative would provide a slight advantage in terms of impact reduction, but would not eliminate significant traffic impacts.

4.4 Analysis of the 36.5-Acre Further Reduced Footprint Alternative

4.4.1 Further Reduced Footprint Alternative Description and Setting

The Further Reduced Footprint Alternative (36.5-acre) would redevelop 36.5 acres of the 70-acre site. Of the 36.5 acres, the County would develop approximately 15 acres of the site for infrastructure improvements (i.e., new taxiways, apron area, drainage facilities, and utility facilities) (Figure 4-2). The remaining 21.5 acres would be dedicated for future improvements to be completed by private developers, which may include: rectangular and T-hangar spaces, conventional hangar space, aircraft tie-downs, an apron area, automobile parking, aircraft maintenance space, and aviation office and business space. Existing uses would be retained on the remaining 33.5 acres of the 70-acre site. The existing 1.1 acres of non-native grassland, which includes 0.18 acre of San Diego ambrosia, would be avoided.

The Further Reduced Footprint Alternative would meet the following project objectives to a lesser extent than the Proposed Project:

- To meet the existing unmet and forecast market demand for based aircraft storage facilities to avoid constraining Airport operations.
- To promote general aviation and attract new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset to the County and the surrounding communities.

Aviation forecasting data demonstrates an unmet demand for based aircraft facilities in both short-term and long-term planning. The analysis illustrates that the existing available aeronautical use acreage (144 acres) for based aircraft parking (aircraft storage) at Gillespie Field is nearing maximum capacity and is identified as a critical constraint at the Airport. Additionally, the County has been directed by the FAA to develop the 70-acre site for aviation uses in accordance with the "highest and best use" for the property (FAA 2005). The Further Reduced Footprint Alternative would not only restrict the construction of necessary facility improvements on the Proposed Project site, but will hinder the Airport's ability to operate at its full potential.

The Further Reduced Footprint Alternative would also not fully promote general aviation and attract new tenants and users to Gillespie Field to increase the airport's value as a revenue-generating asset to the County and the surrounding communities. This objective would not be fully achieved through the Further Reduced Footprint Alternative as only a portion of the 70-acre site would be developed, thereby reducing the potential to generate maximum revenues to the Airport Enterprise Fund. Revenue generation is critical to the ongoing maintenance and operation of the Gillespie Field Airport.

The Further Reduced Footprint Alternative would meet the project objectives to a lesser extent than the Proposed Project. A comparison of the environmental effects of this alternative follows.

4.4.2 Comparison of the Effects of the Further Reduced Footprint Alternative to the Proposed Project

4.4.2.1 Biological Resources

Under the Further Reduced Footprint Alternative, direct impacts to the 0.18 acre of San Diego ambrosia and 1.1 acres of non-native grassland would be avoided. Therefore, the Further Reduced Footprint Alternative would provide a substantial advantage in terms of impact avoidance.

4.4.2.2 Hazards and Hazardous Materials

The Further Reduced Footprint Alternative consists of developing 36.5 acres (15 acres of infrastructure improvements and 21.5 acres of land available for aviation development by private developers) while retaining existing uses on the remaining 33.5 acres (Figure 4-2). Impacts to hazards and hazardous materials resulting from the Further Reduced Footprint Alternative, and associated mitigation measures, would be slightly less since less soil disturbance would be required due to the reduced footprint. Therefore, the Further Reduced Footprint Alternative would provide a slight advantage in terms of impact avoidance.

4.4.2.3 Transportation and Traffic

The Further Reduced Footprint Alternative consists of development of 36.5 acres (15 acres of infrastructure improvements and 21.5 acres of land available for aviation development by private developers) while retaining existing uses on the remaining 33.5 acres. The Further Reduced Footprint Alternative would include the same type of facility improvements as the Proposed Project, including installation of a taxiway, apron area, drainage facilities, and utility facilities, as well as aviation-use development.

The Further Reduced Footprint Alternative would generate proportionally less traffic than the Proposed Project (1,407 ADT, 102 AM peak hour trips, and 111 PM peak hour trips) and the Reduced Footprint Project Alternative (1,327 ADT, 96 AM peak hour trips, and 105 PM peak hour trips). The Further Reduced Footprint Alternative would result in proportionally less ADT than the Proposed Project due to the reduction of 33.5 acres of proposed hangar areas.

Therefore, the Further Reduced Footprint Alternative would provide a significant advantage in terms of impact reduction and would eliminate significant traffic impacts.

4.5 Identification of Environmentally Superior Alternative

A comparison of the anticipated impacts associated with the alternatives presented in this PEIR with the impacts of the Proposed Project is provided in Table 4.1. Each alternative, when compared to the Proposed Project on an impact-by-impact basis, has a different combination of effects that avoids the impacts, or results in an impact similar to, greater than, or less than the Proposed Project.

The No Project Alternative would be the environmentally superior alternative because it would eliminate all the significant impacts. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the No Project Alternative is the environmentally superior alternative, another project alternative must be identified as the environmentally superior alternative. Based on the available data and the analysis provided in this section of the PEIR, the Further Reduced Footprint Alternative would be the environmentally superior alternative, which would reduce the Proposed Project's significant environmental impacts to biological resources, hazards and hazardous materials, and traffic. However, this alternative would not meet or achieve the project objectives listed in Section 1.1 of this PEIR to the same extent as the Proposed Project.

Table 4.1. Comparison of Project Alternatives' Impacts to Proposed Project Impacts[1]

Issue Area	Proposed Project	No Project Alternative	Reduced Footprint Project Alternative	Further Reduced Footprint Alternative
Biological Resources	Less than Significant with Mitigation Incorporated	Less than the Proposed Project since none of the impacts to biological resources associated with the Proposed Project would occur.	Less than the Proposed Project since the 0.18 acres of San Diego ambrosia and 1.1 acres of non-native grassland would be avoided.	Less than the Proposed Project since the 0.18 acres of San Diego ambrosia and 1.1 acres of non-native grassland would be avoided.
Hazards and Hazardous Materials	Less than Significant with Mitigation Incorporated	Less than the Proposed Project because the 70-acre site would not be developed and none of the potential impacts related to hazardous materials and hazards would occur.	Similar to the Proposed Project since the same type of development would occur. Impacts to hazardous materials and hazards resulting from this alternative, and associated mitigation measures, would be identical to those listed for the Proposed Project.	Similar to the Proposed Project since the same type of development would occur. Impacts to hazardous materials and hazards resulting from this alternative, and associated mitigation measures, would be identical to those listed for the Proposed Project.
Transportation and Traffic	*Direct Impacts*: Significant and Unmitigable *Cumulative Impacts*: Less than Significant with Mitigation Incorporated	*Direct Impacts*: Less than the Proposed Project because the project would not be developed and no construction or improvements that could increase traffic would occur *Cumulative Impacts*: Less than the Proposed Project because the project would not be developed and no construction or improvements that could increase traffic would occur.	*Direct Impacts*: Similar to the Proposed Project. Although fewer traffic volumes would be added as compared to the Proposed Project, the additional volumes still result in a significant impact. *Cumulative Impacts*: Similar to the Proposed Project. All cumulative impacts would be reduced to a level below significance with mitigation incorporated.	*Direct Impacts*: Less than the Proposed Project. *Cumulative Impacts*: Less than the Proposed Project.

Notes
[1] Greater = Alternative results in greater impacts than the Proposed Project.
Less = Alternative results in less impacts than the Proposed Project.
Similar = Alternative results in similar impacts as the Proposed Project.

Legend

- 15 acres (taxiway and other infrastructure improvements)
- 1.1 acre of ambrosia to be preserved
- 51.9 acres of aviation development
- 100 ft softscape (2.0 acres)

N

0 800

FEET
(scale is approximate)

amec

Reduced Footprint Alternative
Gillespie Field 70-Acre Redevelopment Project

FIGURE
4-1

GRAPHICS/Planning/GillespieField/ReducedFootprintAlt.fh8

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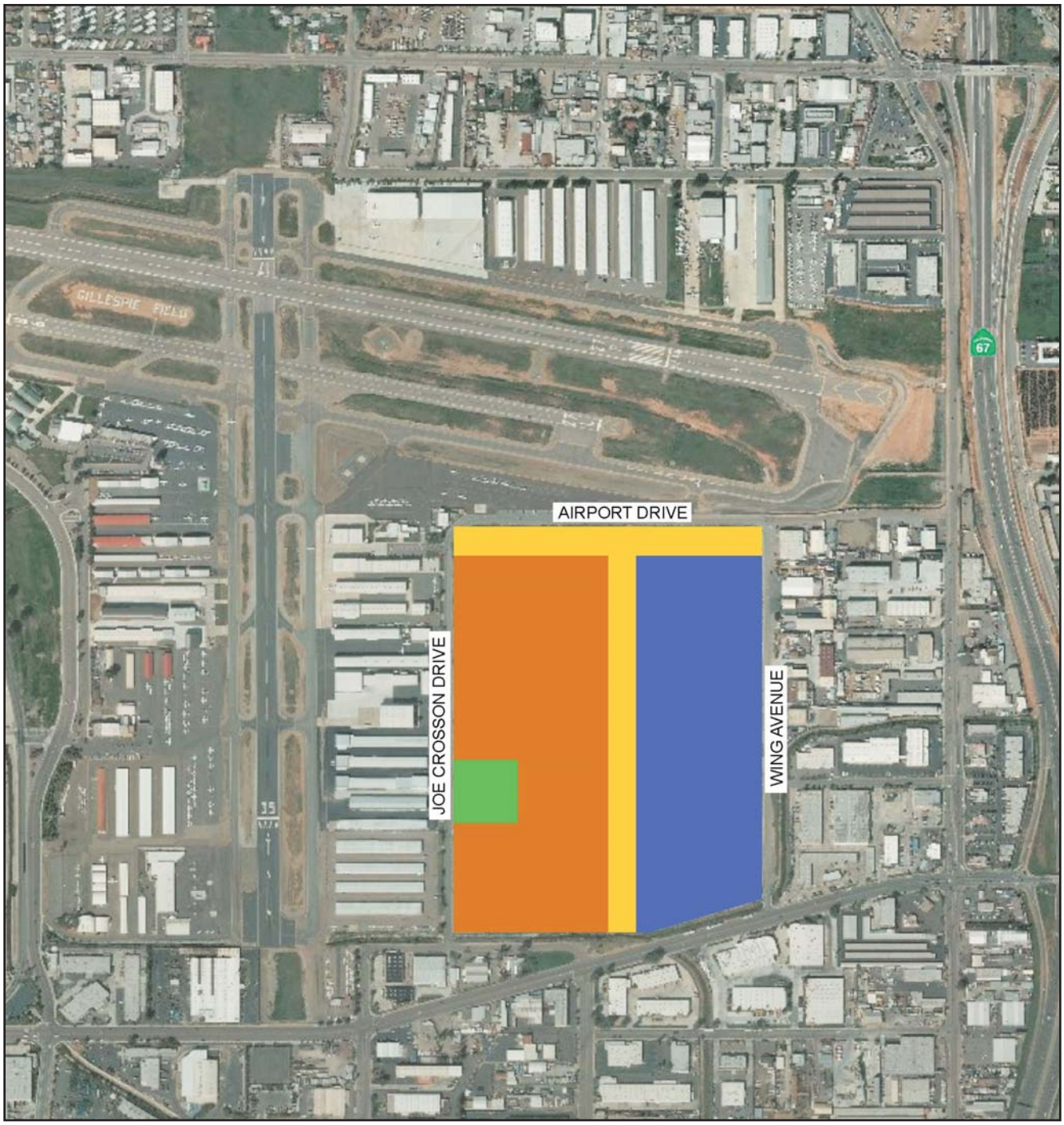

amec

Further Reduced Footprint Alternative
Gillespie Field 70-Acre Redevelopment Project

FIGURE

4-2

GRAPHICS/Planning/GillespieField/FurtherReducedAlt.fh8

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CHAPTER 6 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

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CHAPTER 7 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

This chapter provides a comprehensive list of all mitigation measures included in the Proposed Project as well as the project design measures that act to mitigate or reduce potentially significant environmental impacts.

7.1 Mitigation Measures

7.1.1 Biological Resources

M-BI-1a The County will offset direct impacts to 0.18 acre of San Diego ambrosia through transplantation of all individuals within the Proposed Project footprint to a 2.9-acre native grassland area north of the San Diego River, within MTRP[6] as directed in the BO issued by USFWS on September 1, 2009.

A survey will be conducted before project impacts occur to ensure that all San Diego ambrosia have been located and mapped within the Proposed Project footprint. The outer perimeter of each ambrosia patch will be delineated on the ground with spray paint. If any ambrosia stems are discovered outside of this pre-transplantation mapped area of ambrosia, the County will reinitiate consultation with USFWS.

M-BI-1b A San Diego ambrosia transplantation plan will be approved by USFWS before any impacts to the species may occur. The plan will be implemented by a biologist or botanist with experience transplanting sensitive plant species (i.e., transplantation biologist). The transplantation plan will serve to guide the transplantation effort and the initial five-year monitoring program.

M-BI-1c The ambrosia transplantation plan as described in the BO issued by USFWS will include the following:

- Individual clusters of ambrosia will be salvaged as blocks and transplanted to the transplantation site at MTRP using similar spacing and distribution as at the Proposed Project site.
- Ten percent of ambrosia within the clusters will be removed from the Proposed Project site, following the USFWS-approved transplantation plan, and will be grown in large flats at a nursery/greenhouse and used for later out-planting at the MTRP transplantation site.
- The exact location at the transplantation site where the cut-blocks containing ambrosia propagules will be transplanted will be determined in the field by the transplantation biologist, in coordination with the USFWS, prior to transplantation.

[6] MTRP is protected by open space easements and is managed by the City of San Diego Department of Parks and Recreation.

- The methods of transplantation, monitoring, and maintenance will be developed in coordination with the USFWS. The agreed-upon methods will be described in the transplantation plan, and will include specifics such as timing of transplantation, preparation of the donor and receptor sites prior to transplantation, placement of San Diego ambrosia, predator control and protective fencing, weeding, irrigation, length and type of monitoring, maintenance, and success criteria.
- The 2.9-acre San Diego ambrosia transplantation site will be restored with native grasses.

M-BI-1d The receptor site will be fenced off to delineate areas containing the transplanted San Diego ambrosia to minimize the potential effects of herbivory.

M-BI-1e The County will be responsible for long-term management of the transplantation site at MTRP.

M-BI-1f The transplanted ambrosia population will be monitored for a minimum of 5 years, in accordance with the requirements of the USFWS-approved translocation plan, to document success of the transplantation efforts. Success will be achieved when 80 percent of the transplanted San Diego ambrosia plugs are established and expand from the transplanted plugs as clones and/or newly established individuals.

M-BI-1g All San Diego ambrosia propagules taken from the Proposed Project site for nursery/greenhouse growing will be out-planted at the restoration site to increase the probability of transplantation success. Out-planting of the nursery/greenhouse-grown San Diego ambrosia plants will occur during the five-year monitoring period as determined by the transplantation biologist in coordination with the USFWS. In the event of transplantation failure, the transplantation plan will include a contingency plan to offset impacts to San Diego ambrosia.

M-BI-1h In addition to the USFWS-approved transplantation plan, a long-term management strategy will be approved by the USFWS before any impacts to San Diego ambrosia may occur. County staff will be responsible for ensuring that the transplanted ambrosia population is managed consistent with this long-term management strategy.

M-BI-1i The 0.18-acre San Diego ambrosia population was previously fenced and preserved as mitigation associated with the 1985 Gillespie Field Airport Master Plan EIR. To offset these impacts, the County would conserve an additional 1.1 acres of existing San Diego ambrosia by acquiring land or securing a conservation easement over land with an existing San Diego ambrosia population that is currently not conserved.

M-BI-2 Permanent impacts to non-native grassland would be mitigated at a 0.5:1 ratio through preservation of in-kind habitat or a vegetation community of higher biological value. This mitigation would be located within the receptor site of the transplanted or preserved San Diego ambrosia discussed in M-BI-1.

7.1.2 Hazards and Hazardous Materials

M-HZ-1a County Airports shall prepare a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds related to the construction of the taxiway, apron area, drainage facilities, and utility facilities on the site.

This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with EPA and County DEH requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site disposal, as needed, during site development.

The County prepared a Soil Management Plan (Rincon 2011c) for the Proposed Project to comply with this measure and it is included in Appendix E of this PEIR.

M-HZ-1b As a condition of lease agreements for development between the County and private developers, County Airports shall require individual project developers to prepare and implement a Soil Management Plan and/or groundwater dewatering and treatment system to remove, treat, or otherwise reduce the contaminant concentrations to below human or ecological health risk thresholds and before any discharge to a public sewer system or storm drain. This mitigation measure shall be implemented prior to the development of aviation-related uses on the Proposed Project site. Excavation of contaminated soil shall require preparation of a Soil Management Plan in accordance with EPA and County DEH requirements prior to grading and construction to properly assess, handle, contain, and segregate soil excavated or graded from the site. The Soil Management Plan shall outline methods for characterizing and classifying soil for off-site disposal, as needed, during site development. The Soil Management Plan for the private development projects shall be prepared by each individual developer and can tier off the Soil Management Plan already prepared for the public development portion, which is included in Appendix E.

M-HZ-1c As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, the County shall require a qualified environmental monitor to be present during the construction phases of individual development projects. The environmental monitor shall document the presence of contaminated soil and/or groundwater and shall assist in the

excavation and off-site disposal of such soil and/or groundwater or the treatment and on-site reuse of such soil and/or groundwater.

County Airports shall ensure that a qualified environmental monitor will be present during the construction phases of taxiway, apron area, drainage facilities, and utility facilities at the site to document the presence of contaminated soil and/or groundwater. The environmental monitor shall assist in the excavation and off-site disposal of such soil or the treatment and on-site reuse of such soil and/or groundwater.

M-HZ-1d As a condition of lease agreements between the County and private developers for development of aviation uses on the 70-acre site, if development is planned where contaminated soils and/or groundwater are present, a human health risk assessment of these areas shall be conducted by the developer to evaluate potential health risks to future occupants of the site prior to occupation of any structures within the 70-acre site. Vapor transport and risk calculations shall be performed using the County DEH Vapor Risk 2000 spreadsheet model (October 5, 2004 revision). A Risk Based Corrective Action (RBCA) analysis shall be performed in accordance with American Society for Testing Materials ASTM PS-104 Standard Provisional Guide for Risk-Based Corrective Action using the RBCA spreadsheet system (RBCA Tool Kit for Chemical Releases). County Airports will also conduct a similar health risk assessment related to the construction of runway and taxiway improvements at the site.

7.1.3 Transportation and Traffic

M-TR-C1/2 Cumulative impacts would be mitigated below the level of significance through payment into the County TIF program. In accordance with the TIF program, a designated financial contribution would provide adequate mitigation for cumulative impacts associated with development in the unincorporated County. According to the TIF program for calendar year 2011, the Proposed Project has a required fee of $396 per trip. Based on this rate, the Proposed Project would result in the following TIF contribution:

Proposed Project TIF Contribution: 1,407 daily trips[7] x $396 per trip = $557,172

Completion of the financial contribution described above would fully mitigate for cumulative impacts described in TR-C1 and TR-C2.

[7] The Proposed Project would generate 1,407 ADT, which includes the 218 ADT (per TR-C1) that would be added to the identified roadway segment and intersection as a result of the Proposed Project. The 1,407 ADT will be distributed on mobility element roadways in the County that were analyzed by the TIF program.

7.2 Project Design Features for Reduction in Environmental Impacts

The County will ensure the project design features listed in this PEIR are implemented for the public infrastructure portion of the Proposed Project through standard construction contracts. In addition, compliance with the regulations and project design features listed in this PEIR will be a requirement of the lease agreement future private developers must enter into with the County.

7.2.1 Air Quality

In order to minimize dust emissions, the project would require that all active grading areas be watered at least twice per day.

The County of San Diego recommends consideration of alternative diesel fuels and diesel particulate filters as T-BACT. The project will utilize low-sulfur fuels during construction per the requirements implemented by the CARB for 15 ppm sulfur diesel. With use of low-sulfur diesel fuel and idling restrictions to limit idling to less than 15 minutes except as required for startup and midday engine checks, the project would comply with T-BACT, and the risk would be below the County of San Diego's significance threshold of 1 in 1 million with application of T-BACT.

7.2.2 Biological Resources

The County would continue regular maintenance of the Proposed Project site until build-out and conduct preconstruction nesting bird surveys for all future construction activities that are within the breeding season (i.e., February 1 to August 30). Surveys should be conducted by a qualified avian biologist no longer than 72 hours prior to the commencement of construction activities. Nest surveys should be conducted within the construction site and a 500-foot buffer of the construction site to assess both direct and indirect impacts to nesting bird species.

If nesting activity is detected, an appropriate buffer, determined based on the species nesting, should be flagged, and construction activity within the buffer should be delayed until the young have fledged or the nest is no longer active, as determined by a qualified avian biologist. Subsequent nesting bird surveys should be conducted if construction is halted for more than 72 hours at any time during the breeding season. Implementation of these measures would ensure the protection of raptors and/or migratory birds protected under the MBTA, should they be present on-site during future construction activities.

In addition, the County will conduct focused special-status floral surveys prior to project construction.

7.2.3 Greenhouse Gas Emissions

Although no mitigation is required, the following design considerations are recommended for incorporation as feasible into the project:

Design Features to Reduce Construction GHG Emissions

1. Specify and/or purchase recycled industrial products as much as possible in project design and construction (i.e., recycled steel, concrete, asphalt, landscape materials, etc.).
2. Use locally made building materials for construction of the project and associated infrastructure.
3. Follow idling time best practices for construction equipment.
4. Facilitate, and provide incentives for, ride-sharing for construction workers to minimize single-occupancy vehicle trips to the project site during construction.
5. Provide recycling trash receptacles in project solid waste removal plan for construction.
6. Recycle/Reuse demolished construction material, potentially utilizing the County Construction and Demolition Materials Diversion Program.
7. Use California Air Resource Board (CARB)-certified diesel construction equipment.
8. Use a minimum of 10 percent biodiesel in construction equipment.
9. Reduce fuel consumption in off-road diesel engines by at least 10 percent.

Design Features to Reduce Operational GHG Emissions

1. Exceed Title 24 standards by at least 20 percent, which may include the following:
    - Installation of energy efficient lighting, HVAC systems and control systems.
    - Installation of energy-reducing day lighting systems (e.g., skylights, light shelves, and interior transom windows).
    - Installation of 'cool' roofs with special paint and colors, and with Energy Star labeling if available.
    - Installation of energy efficient light emitting diode (LED) lighting and zoned lighting controllers for hangars and offices.
2. Target Leadership in Energy and Environmental Design (LEED) silver or equivalent certification for all new office-type buildings.
3. Use cool roofs and rooftop solar panels on all new buildings. Maximize installation of solar electric panels to provide at least 50 percent of anticipated electricity usage when feasible.
4. Minimization of outdoor lighting throughout project; using LED lighting for necessary outdoor lighting.
5. Providing education to hangar buyers and renters on energy efficiency for tools, equipment and operational use of their hangars.
6. Engineer hangars to be 'solar ready'.

7. Incorporate water-reducing features into landscaping (e.g., auto shut off heads and soil moisture sensitive irrigation meters for reduced watering time and frequency).
8. Use of drought tolerant and water efficient landscape materials.
9. Evaluate potential use of reclaimed water for landscaping.
10. Design hangars for water efficient/Energy Star appliances.
11. Use of low flow/no flow water fixtures in hangars and offices.
12. Provide educational materials to hangar buyers on water and energy conservation techniques and incentives along with solid waste recycling program and recycling locations on site.
13. Provide recycling trash receptacles in project solid waste removal plan for operation.
14. Design and build pedestrian walkways and use low impact building materials.
15. Provide bicycle parking in hangars to encourage non motorized transportation at project
16. Purchase and use of low or zero emission vehicles for use at project (i.e., maintenance carts, trucks, etc.).
17. Follow idling time best practices for maintenance vehicles, reducing idling time to less than 5 minutes.

7.2.4 Hazards and Hazardous Materials

The County shall ensure that all contractors and subcontractor project personnel receive training regarding the appropriate work practices necessary to comply with the applicable environmental laws and regulations related to hazardous material spill prevention and response measures. The County shall prepare and implement a Spill Prevention, Control, and Countermeasure Plan to address routine use of hazardous materials, in conformance with title 40, CFR, Part 112; and a SWPPP in conformance with State Water Resources Control Board prior to the construction of facilities improvements to reduce pollutants in storm water runoff.

Additionally, as a condition of lease agreements for development, the County shall require project developers of individual development projects to prepare a SWPPP and Business Emergency Plan (BEP) to address transport, storage, use, and disposal of hazardous materials following construction of proposed developments. County Airports shall also prepare a BEP to address transport, storage, use, and disposal of hazardous materials related to construction and operation of planned facilities improvements.

7.2.5 Hydrology and Water Quality

As part of the project design, the following design features would be incorporated into the Proposed Project:

- Prior to any development on the Proposed Project site, the County shall prepare a Conceptual Master Grading Plan in accordance with the San Diego Grading, Clearing, and Watercourse Ordinance and consistent with the San Diego County Drainage Design

Manual (County of San Diego 2005) that will address all grading and drainage improvements necessary to accommodate the Proposed Project. The Conceptual Master Grading Plan shall identify the size of the outlet drainage facilities necessary to accommodate development. In addition to constructing the necessary drainage facilities for the proposed improvements, the County shall also construct the necessary outlet drainage facilities on the Proposed Project site.

- Prior to any development on the Proposed Project site, the County shall prepare a storm water detention system plan consistent with the San Diego County Drainage Design Manual (County of San Diego 2005), to ensure project storm flows do not exceed existing conditions. The storm water detention system plan shall identify required on-site storm water detention facilities and storm water drainage inlets and outlets required to handle the estimated volume of 100-year flows at the site.
- The County shall implement LID IMPs and LID BMPs to reduce storm water runoff rates and duration consistent with guidelines in the County of San Diego Standard Urban Storm Water Mitigation Plan for Land Development and Public Improvement Projects (January 8, 2011). The LID IMPs and LID BMPs shall meet all requirements outlined in the County's Model SUSMP and provide a reduction in storm water runoff rates to achieve no net increase in flow rates discharged from the project site. Storm water runoff reduction shall be accomplished by strategic placement of LID IMPs uniformly throughout the project site to mimic the natural flow regime and capture any net increase in runoff through increased infiltration. The following specific LID IMPs shall be considered in the project's final design to meet the required reduction in storm water runoff. Private development of aviation use areas would be required to implement LID IMPs including vegetated roof systems, infiltration trench/islands/beds, vegetated or rock swales/filter strips, rain water harvesting (cisterns/rain barrels), bioretention, and/or permeable pavement and materials.

Redevelopment of the Proposed Project site will involve development of more than one acre of commercial/industrial uses; therefore, the project will comply with the Final Hydromodification Plan for San Diego County as outlined in the County of San Diego Watershed Protection Ordinance (Section 67.812(b)) and approved by the RWQCB on July 14, 2010. The project would demonstrate that post-project runoff will not cause or accelerate downstream channel erosion or other negative impacts to beneficial stream uses. The hydromodification plan will follow the approach outlined in Appendix F. Additionally, a continuous simulation of the rainfall record will be performed to confirm that the estimated post-project runoff durations and peak flows do not exceed the pre-project durations and peak flows as required by the County's WPO (Section 67.812(b) Hydromodification Management).

Construction BMPs

√	*Silt Fence*	√	*Check Dams*
√	*Fiber Rolls*	√	*Gravel Bag Berm*
√	*Street Sweeping and Vacuuming*	√	*Sanitary/Septic Waste Management*
√	*Material Delivery and Storage*	√	*Stockpile Management*
√	*Spill Prevention and Control*	√	*Solid Waste Management*

√	*Concrete Waste Management*	√	*Stabilized Construction Entrance/Exit*
√	*Water Conservation Practices*	√	*Hydroseeding and/or soil binders*
√	*Paving and Grinding Operations*	√	*Velocity Dissipation Device*
√	*Storm Drain Inlet Protection*	√	*Wind Erosion Control*
√	*Scheduling*	√	*Concrete Curing*

Implementation of the SWPP and the construction BMPs in accordance with the project plans and specifications, which are in compliance with federal, state, and local regulations, would reduce potential water quality construction impacts to less than significant.

Post Construction BMPs

- *Site Design BMPs* – BMPs that create a hydrologically functioning project design that attempt to mimic the natural hydrologic regime. Examples include reducing imperviousness, conserving natural resources, and providing runoff storage measures dispersed uniformly throughout a site's landscape with the use of a variety of detention, retention and runoff practices.
- *Source Control BMPs* – BMPs that are incorporated during site planning and approval, consistent with applicable General Plan policies and other development regulations. Examples include storm drain system stenciling and signage and design of trash storage areas to reduce pollution introduction
- *Treatment Control BMPs* – BMPs designed to remove specific pollutants from the storm water conveyance system to the maximum extent practicable. These BMPs are focused on the site-specific pollutants generated by the project. Treatment Control BMPs include biofilters, detention basins, infiltration basins, wet ponds/wetlands, drainage inserts, filtration, and hydrodynamic separator systems

Implementation of these measures would comply with state and federal water quality regulations and reduce potential water quality impacts to *less than significant*.

7.2.6 Noise

Non-aircraft activities associated with redevelopment of the Proposed Project site would incorporate design features to reduce noise levels during operations. The following design features will be included in the design of facilities:

1. Prior to construction, the County will require all new aviation-oriented business space and hangars to prepare a noise analysis demonstrating compliance with County noise levels limits. The noise analysis will include all ground level noise generating sources within the Proposed Project site.
2. HVAC shall have sound level ratings of 87 dBA at 3 feet or lower. This may be achieved by either purchasing models with this rating, using sound insulation or blankets, or constructing enclosures around the equipment.

3. Orient hangar openings to the north and eliminate or minimize openings on the west, south, and east sides of the buildings to avoid or minimize transmittal of noise outside airport property.

While no construction impacts have been identified, the following design features should be incorporated into construction plans and construction site management practices.

1. Staging areas for the construction equipment shall be located the farthest reasonable distance from the site southern boundary.
2. Electric power shall be provided to the construction site as soon as feasible to minimize the use of continuous operation of portable generators.
3. Stationary noise-generating devices such as generators, compressors, welders, etc. shall be positioned as far from the Proposed Project boundary as feasible.
4. All construction equipment shall have manufacturer's mufflers or better installed and in good condition.

To minimize the disturbance and reduce the magnitude and frequency of the construction noise, design features are recommended, such as locating construction staging areas and stationary noise-generating sources away from the site boundaries, providing electric power for construction to minimize generator use, and using equipment in good condition with manufacturer's mufflers or better. In compliance with the noise ordinance, construction activities would be prohibited between 7:00 p.m. and 7:00 a.m., Monday through Saturday, and all day Sunday, and would not exceed the maximum noise level limits identified in San Diego County Code Section 36.410.