Relationship to Other General Plan Elements

As mandated by State law, the Mobility Element must be consistent with all other elements of the General Plan (including community plans) and is related to these elements as discussed in the following section.

- *Land Use Element.* The Mobility Element is directly correlated to the Land Use Element this includes the identification of a road network that can adequately support the uses designated in the Land Use Map at build-out, based on a reasonable expectation for funding of the regional transportation network. The capacity required for the Mobility Element road network is based on the average number of daily vehicle trips that would be generated with build-out of the Land Use Map. The Mobility Element framework of road types relates to the varying characteristics of communities. The Land Use Element addresses non-transportation infrastructure components such as water, sewage, storm drainage, and communications; many of which are located within the rights-of-way of the road network.
- *Noise Element.* This element addresses noise generated by motorized traffic on roadways, rail lines, and at airports. Also, the Noise Element identifies noise level contours and determines their compatibility with each land use type.
- *Conservation and Open Space Element*. This element provides measures for the preservation, conservation, development, and use of natural resources. The element addresses the air quality impacts from motor vehicular traffic, along with the impacts to environmentally sensitive habitats from road construction or improvements. In addition, the Mobility Element identifies the regional trail system that enhances community circulation and provides connections to recreational opportunities within County parks, open space preserves, and other public lands.
- *Safety Element.* Emergency ingress and egress routes are addressed in both the Mobility and Safety Elements. The Safety Element further establishes land use compatibility policies for areas located within the vicinity of airports.

Goals and Policies for Mobility Element

County Road Network

CONTEXT

In the unincorporated County, the road network is by far the most dominant component of the County's transportation system. Although motorists are the primary users of the system, transit riders, bicyclists, pedestrians, and equestrians rely on the network for mobility within the unincorporated County as well as the greater San Diego region. State highways and regional arterials in the unincorporated County are part of an extensive regional network that is integrated with an interstate highway system that provides intra- and interregional travel within and through the unincorporated County as described below.

- Traffic from Orange County enters the County along Interstate 5 through Marine Corps Base Camp Pendleton and travels to the coastal cities.
- Traffic from Riverside County travels into the unincorporated County along Interstate 15 and State Route 79, through the Rainbow Community Planning Area and North Mountain Subregion, respectively.

- Traffic from Imperial County enters the County along Interstate 8 through the Mountain Empire Subregion and along State Routes 78 and S22 through the Desert Subregion.
- Traffic from Baja California, Mexico enters the unincorporated County through the Tecate Port of Entry in Tecate, U.S.A. in the Mountain Empire Subregion.

COUNTY ROAD SYSTEM

With the exception of state-maintained highways and roads, the County is responsible for the maintenance of the public (Mobility Element and Local Public) road network in the unincorporated areas, including associated bicycle and pedestrian facilities. In addition, the County also reviews development projects with private roads to ensure adequate ingress and egress is being provided. The three primary types of roads under the purview of the County are as follows:

- *Mobility Element roads* are County-maintained roads shown on the Mobility Element map and adopted in the General Plan. They provide for the movement of people and goods between and within communities in the County. The Mobility Element displays these roads showing both the road classification and its general alignment.
- *Local public roads* are County-maintained roads that feed traffic onto Mobility Element roads. These roads are not adopted in the General Plan; therefore deviations from planned networks do not require a general plan amendment.
- *Private roads*, including their rights-of-way, are not maintained by the County and generally are not available for general public use.

Mobility Element road

Via de Fortuna Road, a San Dieguito local public road

Yellow Brick Road, a private road in Valley Center

Transportation and land use are two important and related components of every community that help establish its character and function. Land use decisions take into account the road network when assessing the physical characteristics of the site along with resulting traffic impacts. Road design should minimize impacts to land use by including elements and features that accommodate community needs and reflect the character of the area. For example, the design of a four-lane road in an urbanized commercial center would differ from a four-lane road in a sparsely developed rural area. Functional road classifications are correlated to the Regional Categories identified in the Land Use Element.

While well designed roads respond to land use characteristics. A second major objective of the Mobility Element is to develop roads that are multi-modal and can safely accommodate vehicular, as well as transit, bicycle, equestrian, and pedestrian modes of travel. The San Diego County Public Road Standards and

supplemental manuals provide guidance for the road designs, along with including bus stops and non-motorized circulation facilities into the road right-of-way.

COUNTY ROAD OPERATIONS AND NETWORK

The backbone of the County's road network is referred to as the Mobility Element network, which includes both State highways and County roads. However, the goals and policies for roadways apply to all roads, public and private, unless otherwise stated.

The Mobility Element road network is based on a combination of physical and environmental conditions, community input, and SANDAG traffic model forecasts based on full build-out of the General Plan land use map. When physical and other constraints preclude constructing roads to the number of lanes required to accommodate traffic with a LOS D or better, exceptions, coordinated with community planning or sponsor groups, have been made to accept the road operating at LOS E or F, according to the SANDAG traffic model forecasts. The SANDAG traffic model used 2030 projections for build-out of the regional (freeways, state highways, and transit facilities) transportation network and the road networks and land use plans for incorporated jurisdictions.

The road network identified by the Mobility Element is depicted on community level maps showing the road classification series and the general route of each road (see Mobility Element Network Appendix). Freeways, although shown on these maps, are included only for reference, as Mobility Element roads include State highways, but not freeways. The maps are accompanied by a matrix that identifies the road segment, its classification, any necessary improvements (such as a raised median, continuous or intermittent turn lanes, passing lanes, reduced shoulder width, or increased right-of-way requirements), and special circumstances including when it is deemed acceptable for a specific road segment to operate at a level of service E or F. Further explanation regarding the operating levels of service for each road segment is provided in the Background Material Section at the end of this chapter, along with specific exceptions to the established levels of service.

ROAD CLASSIFICATIONS

The County's road classifications are specific to roads operated and maintained by the County, and may be different from roads in other jurisdictions. The County's classification system is arranged by road type in a hierarchy that begins with roads that provide the greatest capacity (six-lane roads) to those that provide the least capacity (two-lane roads). The greater the road capacity, the more vehicles can travel on the roadway at an acceptable level of service. Table M-1a (Road Classifications: Six- and Four-Lane Roads) and Table M-1b (Road Classifications: Two-Lane Roads) provide a description for each classification, the number of travel lanes, and both the minimum right-of-way requirements and the right-of-way requirements when bicycle lanes and pathways are provided. The County's Public Road Standards provide additional criteria for these road types, such as design speed and threshold capacity. When the volume of a roadway increases beyond the threshold capacity of its classification, a higher capacity classification is required.

Residential street with parking

Flexibility exists within the Public Road Standards for exceptions that may be appropriate for community context or other reasons. Additionally, community specific road standards may also be prepared to implement context-sensitive solutions for individual communities. Where it is demonstrated that permanent bus or transit facilities are needed, such as in a regional transit or school district plan based upon the demand and frequency of buses, additional right of way may be required/obtained for the provision of a bus turn out at designated bus stop locations, based upon design criteria provided by the transit district or school district. In some instances this has been done by utilizing part of the parkway in lieu of increasing the overall right-of-way. The bus turn-outs are designed and implemented on a case by case basis depending on the need and design parameters at the proposed bus turnouts.

These road classifications are specific to County Mobility Element roads, and although another jurisdiction may have a similar classification, the design criteria and standards are not necessarily the same. In addition, although State highways are included in the Mobility Element road network, the cross-section and right-of-way requirements for State highways are within Caltrans' jurisdiction and may be different than those of Mobility Element road classifications. Generally Caltrans prefers that rural conventional highways with at-grade intersections and with speeds greater than 40 mph, have a Clear Recovery Zone of 20 feet beyond the edge of the traveled way. Fixed objects located at distances less than the required Clear Recovery Zone may not be allowed.

Table M-1a Road Classifications: Six- and Four-Lane Roads

No.	Road Classification	Description	Typical ROW Range* (Feet)	Lanes
SIX LANE ROAD SERIES Roads that accommodate high speed, high volume traffic and should be located away from Villages and in areas with limited physical constraints. The median serves as a separation between travel ways, as opposed to an area for turning or entering adjacent property.				
6.1	Expressway	A divided roadway with a wide median and grade separated interchanges. Road type has a capacity of 86,000 ADT (or more depending upon the number of lanes).	146–160	6 or more
6.2	Prime Arterial	A divided roadway with a median and at-grade interchanges. Capacity for road type is 50,000 ADT.	122–136	6

Table M-1a Road Classifications: Six- and Four-Lane Roads

No.	Road Classification	Description	Typical ROW Range* (Feet)	Lanes
		MAJOR ROAD SERIES A roadway that primarily serves medium to high volume traffic. Because of its high design speed, this road should typically be located in physically unconstrained areas and its use in Villages should be limited to industrial or heavy commercial areas with low levels of pedestrian and bicycle traffic. In some circumstances, an exception can be made for using a modified design speed of 45 mph.		
4.1A	Major Road with Raised Median	Appropriate for regional travel between communities where higher traffic volumes are forecast.	98–112	4
4.1B	Major Road with Intermittent Turn Lanes	Typically used in areas where turning movements are infrequent or where ROW is limited.	84–112	
		BOULEVARD SERIES A roadway with a lower design speed and a wider parkway that should be used in Villages or similar locations where higher traffic volumes are combined with on-street parking, pedestrian, bicycle, and transit activities. The Boulevard Series can also be used in rural areas that are constrained by steep slopes or where the community requests a context sensitive solution that minimizes cut, fill, and grading requirements and pathways are requested.		
4.2A	Boulevard with Raised Median	Increased road capacity and access control by providing a separation between travel lanes and dedicated turn lanes, along with a wide parkway to accommodate non-motorized circulation.	106–120	4
4.2B	Boulevard with Intermittent Turn Lane	Typically used where turning movements are infrequent or where ROW is limited.	92–120	

* Range reflects ROW requirement both with and without the provision of bicycle lanes, in accordance with the Bicycle Transportation Plan. The provision of pathways identified in the Community Trails Master Plan could require additional ROW, depending upon what other needs are being accommodated in the parkways.

Table M-1b Road Classifications: Two-Lane Roads

No.	Road Classification	Description	Typical ROW Range* (Feet)	Lanes
		COMMUNITY COLLECTOR SERIES Roadway with higher design speeds that is appropriate for areas with few physical constraints and minimal pedestrian, bicycle, or other non-motorized traffic. Road type for use where physical constraints are limited.		
2.1A	Community Collector with Raised Median	The raised median provides more capacity, controls turn movements, and improves flow.	74–86	2
2.1B	Community Collector with Continuous Turn Lane	The continuous turn lane improves traffic flow in areas with multiple driveways and left-turn access requirements.	74–86	
2.1C	Community Collector with Intermittent Turn Lane	Intermittent turn lanes provide more capacity over a normal two-lane road and improve traffic flow.	60–86	
2.1D	Community Collector with Improvement Options	Road type with wider right-of-way for added flexibility to accommodate improvement options such as turn lanes, medians, or passing lanes.	84–96	

Table M-1b Road Classifications: Two-Lane Roads

No.	Road Classification	Description	Typical ROW Range* (Feet)	Lanes
2.1E	Community Collector	Roadway with no improvement options. It accommodates low to medium traffic volumes in areas where turning movements are infrequent and where non-motorized traffic is limited.	60–72	
LIGHT COLLECTOR SERIES Roads with a lower design speed and wider parkway than the Community Collector. They can be used in rural areas with medium physical constraints or in urbanized areas with moderate levels of non-motorized circulation.				
2.2A	Light Collector with Raised Median	The median provides a separation between travel lanes; controls turn movements, and improves traffic flow.	78–90	2
2.2B	Light Collector with Continuous Turn Lane	Continuous turn lane improves traffic flow in areas with multiple driveways and left-turn access requirements.	78–90	
2.2C	Light Collector with Intermittent Turn Lanes	Dedicated intermittent turn lanes provide more capacity and improve traffic flow.	64–90	
2.2D	Light Collector with Improvement Options	Has a wider right-of-way for added flexibility to accommodate improvement options such as turn lanes, medians, or passing lanes.	88–100	
2.2E	Light Collector	Roadway has no special features and accommodates low to medium traffic volumes where turning movements are infrequent and where non-motorized traffic and physical constraints are limited.	64–76	
2.2F	Light Collector with Reduced Shoulder	Roadway with two-foot shoulder, a rolled curb with graded pathway, and a narrow right-of-way. In some instances the shoulder can be widened to six feet to serve as a bicycle lane.	52–60	
MINOR COLLECTOR SERIES Roadway with a low design speed that is appropriate for highly constrained rural areas and for areas within a Village with heavy non-motorized circulation and transit activities. This standard could also be used in semi-rural areas with high levels of "side friction" or access from adjacent parcels. Minor Collectors have a wide parkway that, in rural areas, can be used to grade slopes and improve visibility or moderate tight curves. In more urbanized areas, the wide parkway can be used for pathways and for landscape buffers between vehicular and non-vehicular circulation.				
2.3A	Minor Collector with Raised Median	Raised median with dedicated turn lanes and controlled turning movements that improve traffic flow and enhance community character when the median is landscaped.	82–94	2
2.3B	Minor Collector with Intermittent Turn Lane	Improves traffic flow in areas with multiple driveways and left-turn access requirements.	68–82	
2.3C	Minor Collector	No additional features and is primarily intended for residential neighborhoods or for rural areas with steep slopes and physical constraints.	68–80	

* Range reflects ROW requirement both with and without the provision of bicycle lanes, in accordance with the Bicycle Transportation Plan. The provision of pathways identified in the Community Trails Master Plan could require additional ROW, depending upon what other needs are being accommodated in the parkways.

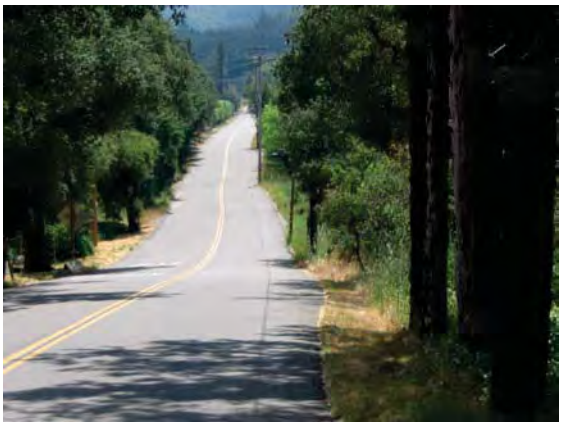
Local public roads provide important system connectivity and continuity for the road network designated by the Mobility Element by providing access to local residential neighborhoods and commercial and industrial areas. They support local traffic at a lower design speed and accommodate traffic volumes up to 4,500 average daily trips. The County Public Road Standards establish the local public road classifications and specify the associated range of improvements.

Local public roads are normally not included in the Mobility Element network, but are depicted with the network for informational purposes when they provide continuity between two Mobility Element roads, especially those that would operate at an unacceptable level of service without the local public roads. Local public roads are also depicted in areas that are currently undeveloped but planned as a future development area. Right-of-way should be reserved for these roads for local ingress/egress and non-motorized uses until subsequent planning efforts in the area determine specific locations of the local public road network. The basic criteria for depicting local public roads in the Mobility Element are provided in the County's Public Road Standards.

LOCATION GUIDE

A Road Classification Location guide that expresses the suitability of a road classification based upon its correlation to the County's Regional Categories is provided as Table M-2 (Road Classification Suitability). As shown in this table, road classifications with lower design speeds are recommended for Villages and for Semi-Rural or Rural Lands with physical constraints. Classifications of roads should consider the predominant topography or land use patterns, and a change in road classification should occur only at road intersections or another easily identifiable location in the network.

At build-out of both the General Plan Land Use plan and designated road network, it is estimated that the road network will not meet the desired level of service standard (LOS D) on approximately 10 percent of all County roads and State highways. For these roads, a lower LOS was deemed acceptable only under special circumstances based on specific criteria as described in Policy M-2.1.



Rural roadway

Residential street in the Valle de Oro community

Table M-2 Road Classification Suitability			
Lanes	**Village**	**Semi-Rural**	**Rural Lands**
6	Limited use only: 6.1 Expressway or 6.2 Prime Arterial	6.1 Expressway or 6.2 Prime Arterial	6.1 Expressway or 6.2 Prime Arterial
4	Primary Suitability: 4.2 Boulevard Limited use only: 4.1 Major Road	Primary Suitability: 4.1 Major Road Limited use only: 4.2 Boulevard	Primary Suitability: 4.1 Major Road Areas with Physical Constraints: 4.2 Boulevard
2	Primary Suitability: 2.3 Minor Collector Secondary Suitability: 2.2 Light Collector Limited use only: 2.1 Community Collector	Primary Suitability: 2.2 Light Collector Secondary Suitability: 2.1 Community Collector Areas with Physical Constraints: 2.3 Minor Collector	Primary Suitability: 2.1 Community Collector Areas with Physical Constraints: 2.2 Light Collector or 2.3 Minor Collector

ROAD NETWORK

State law requires jurisdictions to develop a network that accommodates the land uses proposed in the General Plan. A portion of the Mobility Element road network depicted in the Mobility Element Network Appendix is currently in place, and the remainder will need to be constructed as development proceeds. The network will be constructed by new development as a condition of project approval and/or mitigation for project traffic-related impacts, by County capital improvement projects funded by the Transportation Impact Fee (TIF) Program or other local funding, and by State or federal funds whenever available. The TIF fees collected are to fund identified transportation facilities, or portions thereof, that will provide increased road capacity necessitated by the cumulative impacts of future development. The primary objectives identified below form the basis for the network.

- *Efficient and effective movement of people and goods*—A primary goal of the Mobility Element is a road network that accommodates build-out of the land use map while operating with acceptable levels of congestion. The policies in this General Plan address the need to relieve traffic congestion by balancing the consideration of road capacity and connectivity with the accommodation of alternate modes of travel and the use of transportation demand management methods. Road capacity is based on the type of road constructed, along with its side friction, such as intersection spacing and driveways. Road capacity is maintained when the number of driveways accessing Mobility Element roads is minimized. In addition, a highly connected road network reduces the overall vehicle miles traveled and allows for a greater dispersion of the traffic.
- *Accommodate all users of the road right-of-way*—The Mobility Element also supports the concept of complete streets that are designed and operated to enable safe access for all users and for all modes of travel including non-motorized users and transit riders. This includes users of all ages and abilities such as the elderly, children, and people with disabilities.
- *Right-of-way for road alignments reserved by development*—New development generally causes the need for road improvements. Proposed development within or adjacent to the alignment of a road shown on the Mobility Element map will require coordination with the County to determine the extent to which property needs to be reserved for the alignment and the extent of property owner responsibility for construction of the roadway and right-of-way improvements for non-motorized uses.

An assessment of the need for coordinating the project development with the roadway, potential dedication of property, and/or acquisition of property will be discussed with the property owner. The County may, depending upon the specific circumstances, require dedication of the full width of the right-of-way for designated corridors or acquire all or a portion of the right-of-way for roads being constructed with TIF funds

- *The provision of a road network balanced with other General Plan goals*—While providing for mobility is a primary goal, specific road improvements need to also consider factors such as the protection of environmental resources, the reduction of noise impacts, the development of livable communities, land use compatibility issues related to health risks from air pollution, and the effective allocation of limited County resources. New or expanded road alignments should avoid environmental constraints such as floodplains and steep slopes. Noise impacts from roads vary depending on the type of vehicle and the speed and volume of traffic. To limit noise impacts, high volume roadways should be located away from residential areas and sensitive noise receptors (such as schools) or should include noise mitigating factors in their design.
- *Road design, operation, and maintenance that reflects community character and the Community Plan*—Transportation and land use are two related components of every community that help establish its character and function. Just as land use decisions take into account the road network, road design should include components and features that serve community needs and reflect the character of the surrounding area. Proper road design should accommodate both motorized and non-motorized users of the road and respond to both travel demands and the character of the place (neighborhood, village, open space, etc.) that the road traverses. Road design should also consider environmental impacts and minimize runoff pollutants entering County watersheds.

GOALS AND POLICIES

GOAL M-1

Balanced Road Network. A safe and efficient road network that balances regional travel needs with the travel requirements and preferences of local communities.

Policies

M 1.1 **Prioritized Travel within Community Planning Areas.** Provide a public road network that accommodates travel between and within community planning areas rather than accommodating overflow traffic from State highways and freeways that are unable to meet regional travel demands.

M 1.2 **Interconnected Road Network.** Provide an interconnected public road network with multiple connections that improve efficiency by incorporating shorter routes between trip origin and destination, disperse traffic, reduce traffic congestion in specific areas, and provide both primary and secondary access/egress routes that support emergency services during fire and other emergencies.

M 1.3 **Treatment of High-Volume Roadways.** Consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development in order to avoid bisecting communities or town centers. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads, through landscaping, design, and/or careful location of facilities.

GOAL M-2

Responding to Physical Constraints and Preservation Goals. A road network that provides adequate capacity to reasonably accommodate both planned land uses and regional traffic patterns, while supporting other General Plan goals such as providing environmental protections and enhancing community character.

Policies

M-2.1 **Level of Service Criteria.** Require development projects to provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County pursuant to the criteria specifically identified in the accompanying text box (Criteria for Accepting a Road Classification with Level of Service E/F). When development is proposed on roads where a failing level of service has been accepted, require feasible mitigation in the form of road improvements or a fair share contribution to a road improvement program, consistent with the Mobility Element road network.

Refer to the Background Material section (Road Segments Where Adding Travel Lanes is Not Justified) at the end of this chapter for list of road segments accepted to operate at LOS E/F.

Criteria for Accepting a Road Classification with Level of Service E / F

Identified below are the applicable situations, and potential improvement options, for accepting a road classification where a Level of Service E / F is forecast. The instances described below specify when the adverse impacts of adding travel lanes do not justify the resulting benefit of increased traffic capacity. In addition, adding capacity to roads can be growth inducing in areas where additional growth is currently not planned, which is not consistent with County Global Climate Change strategies.

Marginal Deficiencies

When This Would Apply—*Marginal deficiencies are characterized when only a short segment of a road is forecast to operate at LOS E or F, or the forecasted traffic volumes are only slightly higher than the LOS D threshold. Classifying the road with a designation that would add travel lanes for the entire road would be excessive and could adversely impact community character and / or impede bicycle and pedestrian circulation. Also, in some instances, although underutilized alternate routes exist that could accommodate the excess traffic; they were not included in the traffic forecast model.*

Potential Improvement Options—*Rather than increase the number of travel lanes for the entire road segment to achieve a better LOS, it is more prudent to apply operational improvements only on the portion of the road operating at LOS E and F. This may require specifying a road classification "With Improvement Options" to retain sufficient right-of-way to construct any necessary operational improvements.*

Town Center Impacts

When This Would Apply—*This situation would apply when the right-of-way required to add travel lanes would adversely impact established land development patterns and / or impede bicycle and pedestrian circulation. The Community Development Model (see the General Plan's Guiding Principle #2) concept strives to establish a land development pattern with compact villages and town centers surrounded by areas of low and very low density development. The construction of large multi-lane roads could divide an established town center, even though the intent of the road would be to connect areas within the community or improve access to areas within or surrounding the community.*

Potential Improvement Options—*Traffic congestion impacts can be mitigated without adding travel lanes by establishing alternate parallel routes that would distribute the traffic volumes, such as a network of local public roads. Other means of mitigating traffic congestion impacts other than increasing the number of traffic lanes include promoting the use of alternate modes of travel in town centers to reduce single-occupant vehicle trips or maximizing the efficiency of a roadway with operational improvements, such as intersection improvements.*

Regional Connectivity

When This Would Apply—*Regional connectivity issues would apply when congestion on State freeways and highways causes regional travelers to use County roads, resulting in congestion on the County road network. Rather than widening County roads to accommodate this traffic, the deficiencies in the regional road network should be addressed.*

Potential Improvement Options—*Coordinate with SANDAG to identify the necessary improvements to the regional transportation network and to support appropriate priority in the Regional Transportation Plan to improve these congested freeways and highways, rather than contributing to increased congestion on County roads.*

Impacts to Environmental and Cultural Resources

When This Would Apply—*This situation would occur when adding travels lanes to a road that would adversely impact environmental and cultural resources such as significant habitat, wetlands, MSCP preserves, wildlife movement, historic landmarks, stands of mature trees, or archaeological sites. This situation would also occur in areas with steep slopes where widening roads would require massive grading, which would result in adverse environmental impacts and other degradation of the physical environment.*

Potential Improvement Options—*Provide improvement options, such as passing lanes, to areas without significant environmental or cultural constraints. This may require specifying a road classification "With Improvement Options" to retain sufficient right-of-way to construct any necessary operational improvements.*

M-2.2 **Access to Mobility Element Designated Roads.** Minimize direct access points to Mobility Element roads from driveways and other non-through roads to maintain the capacity and improve traffic operations.

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

M-2.4 **Roadway Noise Buffers.** Incorporate buffers or other noise reduction measures consistent with standards established in the Noise Element into the siting and design of roads located next to sensitive noise-receptors to minimize adverse impacts from traffic noise. Consider reduction measures such as alternative road design, reduced speeds, alternative paving, and setbacks or buffers, prior to berms and walls.

Sensitive noise-receptors are described in the Noise Element.

M-2.5 **Minimize Excess Water Runoff.** Require road improvements to be designed and constructed to accommodate stormwater in a manner that minimizes demands upon engineered stormwater systems and to maximize the use of natural detention and infiltration techniques to mitigate environmental impacts.

GOAL M-3

Transportation Facility Development. New or expanded transportation facilities that are phased with and equitably funded by the development that necessitates their construction.

Policies

M-3.1 **Public Road Rights-of-Way.** Require development to dedicate right-of-way for public roads and other transportation routes identified in the Mobility Element roadway network (see Mobility Element Network Appendix), Community Plans, or Road Master Plans. Require the provision of

sufficient right-of-way width, as specified in the County Public Road Standards and Community Trails Master Plan, to adequately accommodate all users, including transit riders, pedestrians, bicyclists, and equestrians.

M-3.2 **Traffic Impact Mitigation.** Require development to contribute its fair share toward financing transportation facilities, including mitigating the associated direct and cumulative traffic impacts caused by their project on both the local and regional road networks. Transportation facilities include road networks and related transit, pedestrian and bicycle facilities, and equestrian.

M-3.3 **Multiple Ingress and Egress.** Require development to provide multiple ingress/egress routes in conformance with State law and local regulations.

GOAL M-4

Safe and Compatible Roads. Roads designed to be safe for all users and compatible with their context.

Policies

M-4.1 **Walkable Village Roads.** Encourage multi-modal roads in Villages and compact residential areas with pedestrian-oriented development patterns that enhance pedestrian safety and walkability, along with other non-motorized modes of travel, such as designing narrower but slower speed roads that increase pedestrian safety.

Road in Valle de Oro with bicycle lane and multi-use pathway

M-4.2 **Interconnected Local Roads.** Provide an interconnected and appropriately scaled local public road network in Village and Rural Villages that reinforces the compact development patterns promoted by the Land Use Element and individual community plans.

M-4.3 **Rural Roads Compatible with Rural Character.** Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, utilize rural road design features (e.g., no curb and gutter improvements) to maintain community character. [See applicable community plan for possible relevant policies.]

M-4.4 **Accommodate Emergency Vehicles.** Design and construct public and private roads to allow for necessary access for appropriately-sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.

M-4.5 **Context Sensitive Road Design.** Design and construct roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.

M-4.6 **Interjurisdictional Coordination.** Coordinate with adjacent jurisdictions so that roads within Spheres of Influence (SOIs) or that cross jurisdictional boundaries are designed to provide a

consistent cross-section and capacity. To the extent practical, coordinate with adjacent jurisdictions to construct road improvements concurrently or sequentially to optimize and maintain road capacity.

Regional Transportation Coordination and Facilities

CONTEXT

The Mobility Element addresses the County-operated multi-modal transportation network that provides a variety of mobility options within the unincorporated County. These services are provided by the County in partnership with the San Diego Association of Governments (SANDAG), Caltrans, transit agencies, the San Diego County Airport Authority, and various railroad operators.

SANDAG is the Regional Transportation Planning Authority and has responsibility for planning and allocating local, state, and federal funds for the region's transportation network. State law and the California Transportation Commission require SANDAG to adopt a 20-year regional transportation plan every four years, which considers improvements to freeways, state highways, transit, and regional bicycle and pedestrian routes. A long-range plan, the *2030 Regional Transportation Plan (RTP): Pathways for the Future* addresses countywide growth through the year 2030 and is available on the SANDAG website at: www.sandag.org/2030rtp.

The 2030 RTP identifies $4.5 billion in improvement projects for highway and regional arterials in the unincorporated County necessary to accommodate development capacity through 2030. The Mobility Element road network is based on reasonably expected revenue forecasts where $3.7 billion in funds of the $4.5 billion in requirements will be available to fund improvement projects in the unincorporated County through 2030.

Interstate 15 looking north

State highways serve intra-county traffic and include State Routes 67, 76, 78, 79, 94, and 125. The design of these roadways varies according to the volume of traffic they carry and ranges from freeway-style construction to two-lane rural roads with at-grade intersections. Generally, these roads require a larger right-of-way so they can be expanded if future traffic volumes warrant.

In addition to the County's road network, there are other regional facilities that are critical to the movement of people and goods within unincorporated areas as well as the larger region including freight and cargo services via truck or rail, and air travel from local airports that primarily accommodate private aircraft, with limited, if any cargo service. These facilities, in conjunction with the County's extensive roadway network, provide a safe and comprehensive multi-modal mobility system for County residents, businesses, and visitors.

TRUCK ROUTES

Trucks are the primary mode used to move goods in and out of the San Diego region although rail, water transport, and air transport facilities are located in the region and contribute to this goods movement system. Commercial trucking in San Diego region primarily uses interstate and State highways as routes of travel. The SANDAG 2030 RTP identifies the major interstate highways and State routes used for commercial trucking in the San Diego region and designated truck routes in the unincorporated County include the following roadways:

- Segments of Interstates 8 and 15
- State Routes 94, 125, 188, and 905
- Otay Mesa Road

The 2030 RTP states that the potential use of managed lanes in off-peak periods will be evaluated in the near future. It also identifies other considerations for additional truck capacity that include improvements on an outer loop which includes SR 67, SR 94, and SR 125 in the unincorporated County. Generally, County roads are only used when destinations are not accessible by one of these major routes.

Semi-truck with cargo

State Route 94 (Campo Road), south of Melody Road in the Jamul / Dulzura Subregion is proposed to remain a two-lane road. This results in inherent limitations for truck traffic using this segment of SR-94. Truck traffic should be shifted to Interstates 8, 805, and 905 and SR-125 after the Otay Mesa II and Calexico Ports of Entry are upgraded.

RAIL FACILITIES

The North County Transit District (NCTD) and Metropolitan Transit System (MTS) own and maintain the main rail line along the coast from downtown San Diego to the Orange County line, which is shared between Amtrak intercity, COASTER, and Metrolink commuter passenger rail services and Burlington North Santa Fe (BNSF) Railway freight service. NCTD also owns the rail corridor between Oceanside and Escondido, operating SPRINTER light rail service, and shares the corridor with BNSF Railway freight service.

A freight line, the San Diego & Arizona Eastern Railway's Desert Line, is the primary rail line that traverses the unincorporated County. Existing rail lines, such as the Desert Line, may be underutilized at their current capacities. For these lines to remain economically feasible for continued operation, their usage should be maximized to provide an alternative to trucks, especially on SR-94, whenever feasible. In addition, BNSF is the operator of a freight line that runs from Oceanside to Escondido. The Amtrak and COASTER passenger lines run along the coast through Marine Corps Base Camp Pendleton. In addition, historical abandoned rail rights-of-way exist in broken segments, some of which are in public ownership, yet are currently underutilized and should be encouraged for adaptive reuse, such as rail to trail conversions.

Since 1996, the California High-Speed Rail Authority (CHSRA) has been the state agency charged with planning, designing, constructing, and operating a statewide high-speed train system. The High Speed Rail

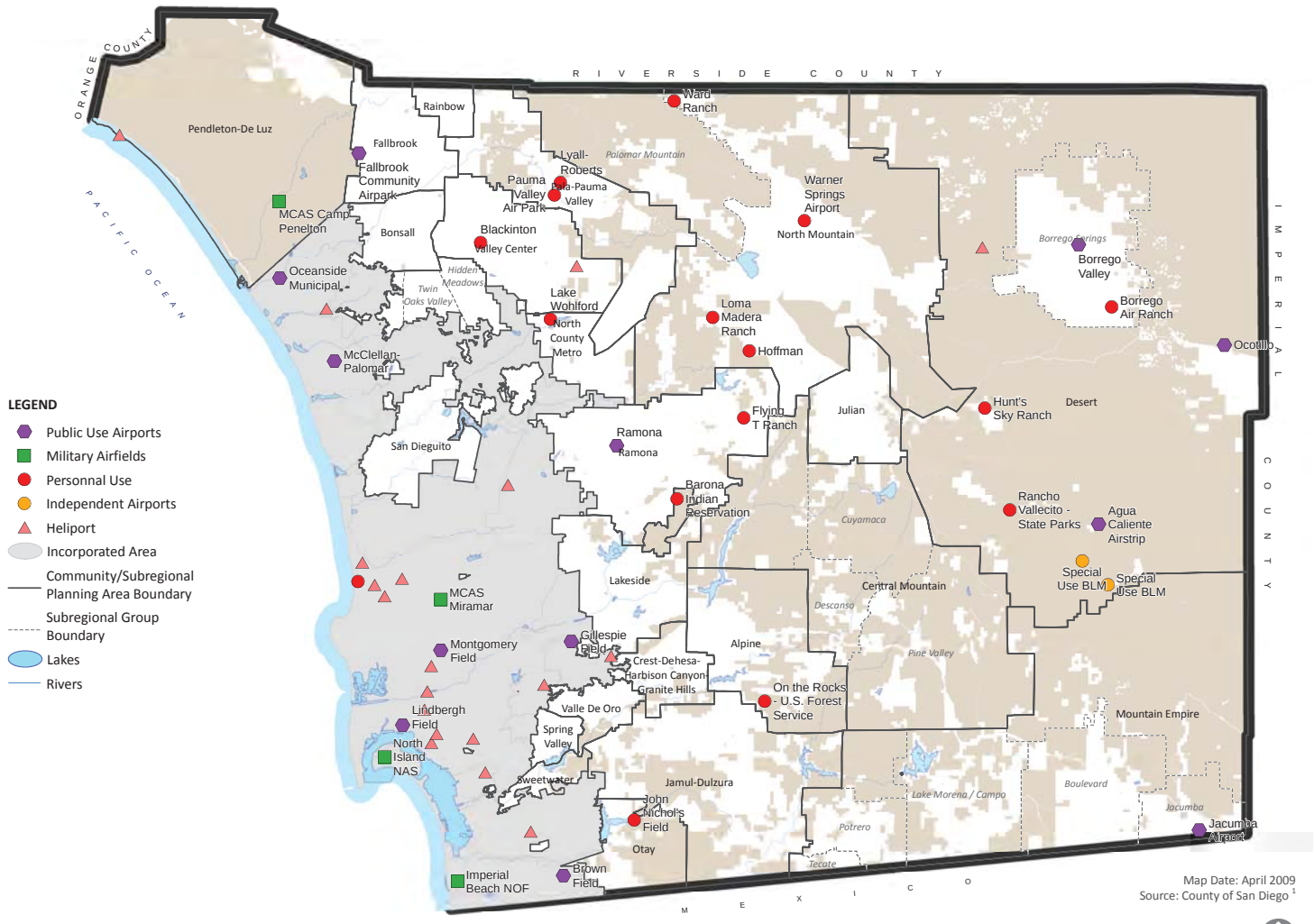
alignment from San Diego would be connected to this proposed system via the Interstate 15 corridor, from downtown San Diego to Escondido, Riverside County, and Los Angeles. The High Speed Rail alignment would originate in Downtown San Diego linking University City, Escondido, Riverside County, and Los Angeles via the San Diego-Los Angeles-San Luis Obispo Rail Corridor Agency (LOSSAN), Miramar Road/Carroll Canyon Road, and Interstate 15 corridors. A programmatic environmental impact report/environmental impact statement (PEIR/EIS) was certified in 2005 and planning work continues on the corridor.

AIRPORTS

San Diego International Airport, located in the city of San Diego, along with John Wayne Airport (Orange County), Los Angeles International Airport (Los Angeles County), and Ontario International Airport (San Bernardino County) are regional airports located in Southern California that provide residents and businesses in the unincorporated County with passenger and cargo services.

Borrego Valley Air field

In addition to San Diego International Airport, eleven public-use airports are located within the boundaries of the County, along with four major military aviation facilities and numerous independent airports and heliports. The County owns and operates eight of these airports, six of which are located in the unincorporated County (Agua Caliente Airstrip, Borrego Valley Airport, Fallbrook Community Airpark, Jacumba Airport, Ocotillo Airstrip, and Ramona Airport). The County also owns Gillespie Field in the City of El Cajon and McClellan-Palomar Airport in the City of Carlsbad. The remaining public-use airports include Brown Field and Montgomery Field (City of San Diego) and Oceanside Municipal Airport (City of Oceanside). These airports are shown in Figure M-1 (Airport Locations).



AIRPORT LOCATIONS

San Diego County General Plan

Figure M-1

GOALS AND POLICIES

GOAL M-5

Safe and Efficient Multi-Modal Transportation System. A multi-modal transportation system that provides for the safe, accessible, convenient, and efficient movement of people and goods within the unincorporated County.

Policies

M-5.1 **Regional Coordination.** Coordinate with regional planning agencies, transit agencies, and adjacent jurisdictions to provide a transportation system with the following:

- Sufficient capacity consistent with the County General Plan Land Use Map
- Travel choices, including multiple routes and modes of travel to provide the opportunity for reducing vehicle miles traveled
- Facilities sited and designed to be compatible with the differing scales, intensities, and characteristics of the unincorporated communities while still accommodating regional, community, and neighborhood travel demands
- Maximized efficiency to enhance connectivity between different modes of travel

Interstate 8 east of Alpine

M-5.2 **Impact Mitigation for New Roadways and Improvements.** Coordinate with Caltrans to mitigate negative impacts from existing, expanded, or new State freeways or highways and to reduce impacts of road improvements and/or design modifications to State facilities on adjacent communities.

GOAL M-6

Efficient Freight Service Linked to Other Transportation Modes. Freight services that efficiently move goods and that are effectively linked to other transportation modes.

Policies

M-6.1 **Designated Truck Routes.** Minimize heavy truck traffic (generally more than 33,000 pounds and mostly used for long-haul purposes) near schools and within Villages and Residential Neighborhoods by designating official truck routes, establishing incompatible weight limits on roads unintended for frequent truck traffic, and carefully locating truck-intensive land uses.

M-6.2 **Existing Rail Line Use.** Support the use of existing rail lines for freight, public transit, and tourism.

Rail depot and tourist train in Campo

M-6.3 **Visual Impacts on Scenic Corridors.** Coordinate with railroad and transit operators to ensure that infrastructure for freight and passenger service is planned and designed to limit visual impacts on scenic corridors.

M-6.4 **Locate Rail Facilities in Established Communities.** Encourage railroad operators to use existing rights-of-way and locate stations and support facilities in established communities.

M-6.5 **Adaptive Reuse of Abandoned Rail Lines.** Support the retention of abandoned railroad rights-of-way and adaptation for uses that benefit the general public, such as public transit, new road connections, regional trails and bike paths, or protected habitat areas, where appropriate.

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.

Policies

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.

Refer to the Airport Hazards section of the Safety Element for additional goals and policies pertaining to airports.

Public Transit

CONTEXT

With the passage of State law (SB 1703), SANDAG is now responsible for transit planning, programming, project development, and construction. SANDAG prepared the 2007–2011 Coordinated Plan, which provides a framework for transit system development over the next five years and reflects the goals and direction for service development as described in the 2030 RTP. This plan also defines the level of service for transit in suburban and rural areas as follows:

- **Suburban**—Direct service along commute corridors with critical mass featuring rapid, frequent service during peaks with seamless coordinated transfers, and local service focused on smart growth areas and lifeline needs
- **Rural**—Transportation services that run only a few times a day on select days of the week (lifeline services)

Pine Valley bus stop with rural-level services

The Sprinter, operated by the North County Transit District

The two agencies responsible for transit operations and services in the unincorporated County areas are the Metropolitan Transit System (MTS) and the North County Transit District (NCTD). Transit services provided by these agencies include heavy and light rail, fixed-route bus service, demand-response service, and paratransit. Existing transit services for the unincorporated County consist of limited regional or local bus services, and light rail (the NCTD SPRINTER) in one very localized area. Transit services are primarily provided to the larger, more urbanized communities, although limited services are available outside this area. In addition, tribal governments operating casinos and non-profit agencies also provide transit services for their clients and customers.

SANDAG has the responsibility to designate the local Consolidated Transportation Services Agency (CTSA) in adherence to and to be funded in part by the state *Transportation Development Act* (TDA). SANDAG then retains regional oversight. The CTSA works to expand the availability and use of specialized transportation services by serving as an information resource for specialized transportation providers and providing technical assistance and public outreach to increase awareness of specialized transportation options. Full Access & Coordinated Transportation, Inc. (FACT), appointed under contract by SANDAG to serve as the CTSA for the San Diego region, is a non-profit corporation formed to coordinate and consolidate transportation services to people with disabilities, senior citizens, and social service agencies.

In addition, Tribal governments established the Reservation Transportation Authority (RTA), a consortium of 24 tribes, in order to pool resources and more effectively coordinate on transportation issues. In conjunction with SANDAG and the RTA, a consultant prepared a Transit Feasibility Study to assess the needs of tribes in the County to improve access for medical, educational, employment, and other essential transportation needs. As a result of the study, some bus routes were expanded.

The availability of public transit can reduce the dependency on motor vehicles and help to shape future growth patterns. Due to existing and planned development patterns, there are currently limited plans for expansion of transit service into unincorporated communities. Although transit currently comprises a small percentage of total trips in the unincorporated County, certain corridors enjoy high transit ridership. In addition, transit-supportive land uses can encourage increased transit use, and transit also is an important public service for lower income residents as well as residents with special needs including seniors and the disabled. A primary objective of the Land Use Element is to focus development in and around existing unincorporated communities to maximize existing infrastructure, provide for efficient delivery of services, and strengthen Town Center areas while preserving the rural landscape. The development patterns of the Land Use Map are intended to facilitate the use of public transportation in Village areas.

The goals and policies in this section seek to maximize opportunities for transit ridership in Village areas while reducing congestion on roadways.

GOALS AND POLICIES

GOAL M-8

Public Transit System. A public transit system that reduces automobile dependence and serves all segments of the population.

Policies

M-8.1 **Maximize Transit Service Opportunities.** Coordinate with SANDAG, the CTSA, NCTD, and MTS to provide capital facilities and funding, where appropriate, to:

- Maximize opportunities for transit services in unincorporated communities
- Maximize the speed and efficiency of transit service through the development of transit priority treatments such as transit signal priority, transit queue jump lanes, and dedicated transit only lanes
- Provide for transit-dependent segments of the population, such as the disabled, seniors, low income, and children, where possible
- Reserve adequate rights-of-way to accommodate existing and planned transit facilities including bus stops

M-8.2 **Transit Service to Key Community Facilities and Services.** Locate key County facilities, healthcare services, educational institutions, and other civic facilities so that they are accessible by transit in areas where transit is available. Require those facilities to be designed so that they are easily accessible by transit, whenever possible.

M-8.3 **Transit Stops That Facilitate Ridership.** Coordinate with SANDAG, NCTD, and MTS to locate transit stops and facilities in areas that facilitate transit ridership, and designate such locations as part of planning efforts for Town Centers, transit nodes, and large-scale commercial or residential development projects. Ensure that the planning of Town Centers and Village Cores incorporates uses that support the use of transit, including multi-family residential and mixed-use transit–oriented development, when appropriate.

M-8.4 **Transit Amenities.** Require transit stops that are accessible to pedestrians and bicyclists; and provide amenities for these users' convenience.

M-8.5 **Improved Transit Facilities.** Require development projects, when appropriate, to improve existing nearby transit and/or park and ride facilities, including the provision of bicycle and pedestrian facilities, provisions for bus transit in coordination with NCTD and MTS as appropriate including, but not limited to, shelters, benches, boarding pads, and/or trash cans, and to provide safe, convenient, and attractive pedestrian connections.

M-8.6 **Park and Ride Facilities.** Coordinate with SANDAG, Caltrans, and tribal governments to study transit connectivity and address improving regional opportunities for park-and-ride facilities and transit service to gaming facilities and surrounding rural areas to reduce congestion on rural roads.

M-8.7 **Inter-Regional Travel Modes.** Coordinate with SANDAG, Caltrans, and the California High-Speed Rail Authority, where appropriate, to identify alternative methods for inter-regional travel to serve the unincorporated County residents.

M-8.8 **Shuttles.** Coordinate with Tribal governments, the Reservation Transportation Authority, and other large employers to provide shuttles and other means of connecting transit stops with job locations, civic, and commercial uses, where appropriate.

Transportation System and Travel Demand Management

CONTEXT

The road network designated in the Mobility Element strives to accommodate the Land Use Map while minimizing the need to build new roads or improve existing roads. Transportation System Management seeks to optimize the transportation network, while Travel Demand Management seeks to reduce the use of the road network.

TRANSPORTATION SYSTEM MANAGEMENT (TSM)

TSM strategies focus on increasing the efficiency, safety, and capacity of existing transportation systems through strategies that relieve, lessen, or control congestion with minimal roadway widening. Techniques include performance monitoring, various types of intersection modifications, advanced technology, coordinated traffic signal timing across jurisdictional boundaries and with freeway ramps, signage and lighting upgrades, facility design treatments, high-occupancy vehicle (HOV) lanes, and targeted traffic enforcement. These strategies can reduce vehicle travel time and enhance system accessibility with little impact on other modes. Reducing traffic congestion keeps automobiles on roads designated for regional mobility, while minimizing through traffic within communities. Through better management and operation of existing transportation facilities, these techniques are designed to improve traffic flow, air quality, and movement of people and goods, as well as enhance system accessibility and safety.

TRAVEL DEMAND MANAGEMENT (TDM)

TDM addresses traffic congestion by reducing travel demand rather than increasing transportation capacity. TDM programs such as employer outreach, carpool partner matching, parking cash outs, vanpools, subsidies and/or preferred parking to rideshare participants, guaranteed. rides home, bicycle lockers, and other amenities for bicyclists and pedestrians including clothing lockers and shower facilities are designed to increase the efficiency of the transportation system. TDM is a key tool to reduce single-occupant-vehicle travel as well as facilitate mobility options for area residents. SANDAG manages the regional TDM program including 511, a free phone and web service that consolidates the San Diego region's transportation information into a one-stop resource. The 511 program provides up-to-the minute information on traffic conditions, incidents and driving times, schedule, route and fare information for San Diego public transportation services carpool and vanpool referrals, bicycling information and more. The County has an opportunity to facilitate the use of TDM methods by encouraging land use planning and infrastructure improvements that better accommodate pedestrians, bicyclists, and transit users. In addition, the County can also offer incentives that encourage projects to implement TDM programs.

GOALS AND POLICIES

GOAL M-9

Effective Use of Existing Transportation Network. Reduce the need to widen or build roads through effective use of the existing transportation network and maximizing the use of alternative modes of travel throughout the County.

Policies

M-9.1 **Transportation Systems Management.** Explore the provision of operational improvements (i.e. adding turn lanes, acceleration lanes, intersection improvements, etc.) that increase the effective vehicular capacity of the public road network prior to increasing the number of road lanes. Ensure operational improvements do not adversely impact the transit, bicycle, and pedestrian networks.

M-9.2 **Transportation Demand Management.** Require large commercial and office development to use TDM programs to reduce single-occupant vehicle traffic generation, particularly during peak periods to maximize the capacity of existing or improved road facilities.

M-9.3 **Preferred Parking.** Encourage and provide incentives for commercial, office, and industrial development to provide preferred parking for carpools, vanpools, electric vehicles and flex cars. [Refer also to Policy COS-16.3 (Low-Emission Vehicles) in the Conservation and Open Space Element.] Encourage parking cash out programs to reimburse employees for the cost of "free" on-site parking to provide incentives to use alternate modes of travel and to reduce parking requirements (see also Policy M-10.5).

Park-and-ride facility at Jamacha Boulevard in Spring Valley

M-9.4 **Park-and-Ride Facilities.** Require developers of large projects to provide, or to contribute to, park-and-ride facilities near freeway interchanges and other appropriate locations that provide convenient access to congested regional arterials. Require park-and-ride facilities that are accessible to pedestrians and bicyclists, and include bicycle lockers and transit stops whenever feasible.

Parking

CONTEXT


Parking in a commercial area in Fallbrook

Parking is an essential component of an efficient transportation system that includes accommodation for automobiles, motorcycles, and bicycles. Parking requirements have an ability to alter transportation choices. Excess free parking promotes an auto-oriented community, discourages high-frequency transit, and can negatively affect walkability. Yet as land becomes scarcer and construction costs increase, so do the costs of providing parking. If an insufficient number of vehicular parking spaces are provided, additional travel is required to find a parking space, causing congestion and delays. If too much vehicular parking is provided, a larger portion of the site is unnecessarily paved, causing degradation in community character and excess stormwater run-off.

The provision of a sufficient quantity of bicycle parking, that is both secure and convenient, will contribute to increased bicycle usage. In addition, a multi-modal transportation network that reduces the reliance on single-occupant vehicles reduces the number of parking spaces needed.

Parking spaces are either provided on the street or within a project site as parking lots. Parking regulations address off-street parking in an effort to provide functionally adequate, safe, convenient, and aesthetically pleasing parking and loading facilities for motor vehicles. On-street parking is allowed within the road shoulder, unless the County imposes a parking prohibition. If a parking prohibition is in place, the shoulder is available for use as a bike facility.

GOALS AND POLICIES

GOAL M-10

Parking for Community Needs. Parking regulations that serve community needs and enhance community character.

Policies

M-10.1 **Parking Capacity.** Require new development to:

- Provide sufficient parking capacity for motor vehicles consistent with the project's location, use, and intensity
- Provide parking facilities for motorcycles and bicycles
- Provide staging areas for regional and community trails

M-10.2 **Parking for Pedestrian Activity.** Require the design and placement of on-site automobile, motorcycle, and bicycle parking in Villages and Rural Villages that encourages pedestrian activity

by providing a clear separation between vehicle and pedestrian areas and prohibit parking areas from restricting pedestrian circulation patterns.

M-10.3 **Maximize On-street Parking.** Encourage the use of on-street parking in commercial and/or high-density residential town center areas to calm traffic and improve pedestrian interaction. Traffic operations and pedestrian safety must not be compromised.

M-10.4 **Shared Parking.** Support town center plans, when desired by the community, that incorporate on-street and/or shared vehicular parking facilities to reduce on-site parking requirements.

M-10.5 **Reduced Parking.** Accommodate appropriate reductions in on-site parking requirements in situations such as:

- Development of low-income and senior housing
- Development located near transit nodes
- Employment centers that institute Transportation Demand Management programs
- Development that integrates other parking demand reductions techniques such as parking cash out, when ensured by ongoing permit conditions

Transportation Demand Management programs are described in the previous section.

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

M-10.7 **Parking Area Design for Stormwater Runoff**. Require that parking areas be designed to reduce pollutant discharge and stormwater runoff through site design techniques such as permeable paving, landscaped infiltration areas, and unpaved but reinforced overflow parking areas that increase infiltration. Require parking areas located within or adjacent to preserve areas to also include native landscaping and shielded lighting.

Bicycle, Pedestrian, and Trail Facilities

CONTEXT

The Mobility Element recognizes that a well planned and designed multi-modal road network, complete with non-motorized travel options that include bicycle and pedestrian facilities as well as hiking, horseback riding, and mountain biking trails and pathways, offers an important alternative to motor-vehicle use. These modes of travel also reduce traffic congestion, dependency on motorized vehicles, roadway noise, and air pollution. A safe and enjoyable walk, hike, bike ride, or horseback ride experience provides many health benefits and encourages more people to walk or bicycle rather than drive their vehicles.

Bike path in the Sweetwater Regional Park

The California Highway Design Manual defines a "Bikeway" as a facility that is provided primarily for bicycle travel. The County Public Road Standards include provisions to allow the construction of Class I, Class II, or Class III bikeways as defined in the California Highway Design Manual, which are described below.

(1) Class I Bikeway (Bike Path). Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.

(2) Class II Bikeway (Bike Lane). Provides a striped lane for one-way bike travel on a street or highway.

(3) Class III Bikeway (Bike Route). Provides for shared use with pedestrian or motor vehicle traffic.

SANDAG is in the process of developing a regional bicycle plan update that seeks to encourage development of a unified regional bicycle system that will serve the needs of bicycle riders by identifying the best ways to provide connections to local and regional activity centers, transit facilities, and regional trail systems. The County's Bicycle Transportation Plan, the County's near term plan for constructing bicycle facilities, is coordinated with the regional plan, and guides the development and maintenance of a bicycle network, support facilities, and other programs for the unincorporated portions of the County. Completing gaps in the bicycle network is a consideration, among other priorities as well, for allocation of funds and the inclusion of a project. Careful consideration is given when weighing the use of limited funds to build Class I Bikeways. In corridors that could be treated with Class II or Class III bicycle facilities by way of minimal investment, options that would complete bicycle networks in the near-term are pursued.

In addition to bicycle lanes and routes, the County Trails Program provides an extensive natural surface trails system that supplements the road network as an alternative off-road travel mode for County residents. Trails are primarily designed for the purpose of recreation and significantly enhancing the quality of life and health benefits associated with walking, hiking, mountain biking, and horseback riding throughout the County's varied environments. The more urban and populated communities have few accessible trails. Most of the existing trails are in the mountains and deserts, and when located within or adjacent to biological preserves are guided by ecological principles and the County's MSCP, which require mitigation of impacts to biological resources. Additional trails are needed closer to population centers in the western portion of the County to provide residents with convenient access and opportunities to enjoy the recreational, health and transportation benefits associated with these facilities. The two types of regional trail facilities are identified below.

- *Trails,* typically located away from vehicular roads, are primarily recreational in nature but can also serve as an alternative mode of transportation. They are soft-surface facilities for single or multiple uses by pedestrians, equestrians, and mountain bicyclists. Trail characteristics vary depending on location and user types.
- *Pathways* are facilities located within a parkway or road right-of-way. A riding and hiking trail located in the road right-of-way is considered a pathway. They are typically soft-surfaced facilities intended to serve both circulation and recreation purposes. Pathways help make critical connections and are an integral part of a functional trail system.

Pathway in Blossom Valley in Lakeside


Pine Valley trail

A regional trails map is included as Figure M-2 (Regional Trails), which identifies approved general alignment corridors for regional trails in the San Diego region. In addition, regional trails are shown on the community level maps in Figure M-A-1 through Figure M-A-23 of the Mobility Element Network Appendix. These trails have characteristics and conditions that serve a regional function by covering long linear distances, transcending community and/or municipal borders, having state, national, or historical significance, or providing important connections to existing parks, open space preserves, and other public lands. Additional existing trail segments and proposed reroutes for portions of some of the regional trails are identified in the Community Trails Master Plan (CTMP), the implementation tool for the County Trails Program.

GOALS AND POLICIES

GOAL M-11

Bicycle and Pedestrian Facilities. Bicycle and pedestrian networks and facilities that provide safe, efficient, and attractive mobility options as well as recreational opportunities for County residents.

See also Goals and Policies in the Conservation and Open Space Element, Biological Resources section, which address the protection of sensitive biological resources and habitat areas.

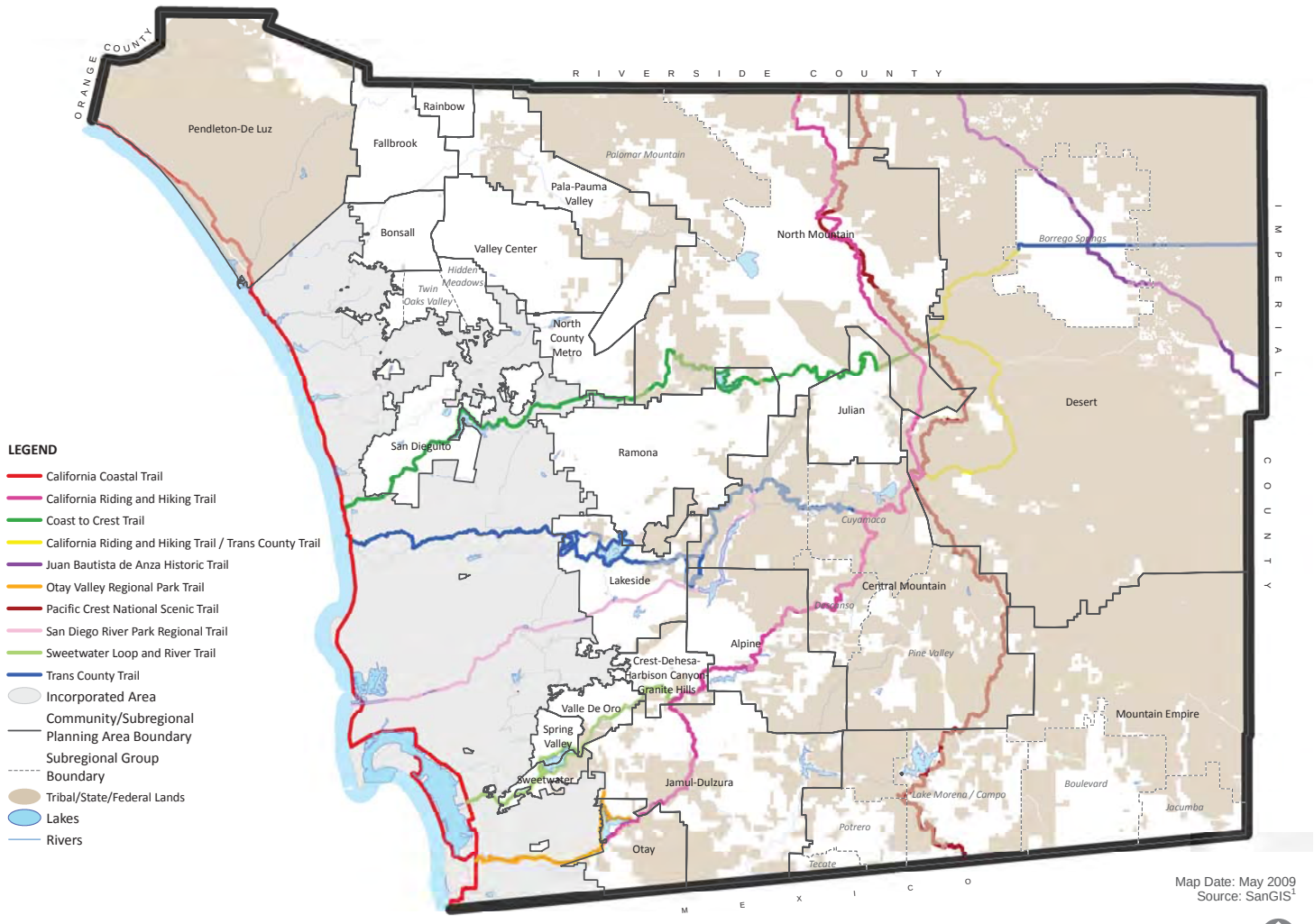
Policies

M-11.1 **Bicycle Facility Design.** Support regional and community-scaled planning of pedestrian and bicycle networks.

M-11.2 **Bicycle and Pedestrian Facilities in Development.** Require development and Town Center plans in Villages and Rural Villages to incorporate site design and on-site amenities for alternate modes of transportation, such as comprehensive bicycle and pedestrian networks and facilities, including both on-street facilities as well as off-street bikeways, to safely serve the full range of intended users, along with areas for transit facilities, where appropriate and coordinated with the transit service provider.

M-11.3 **Bicycle Facilities on Roads Designated in the Mobility Element.** Maximize the provision of bicycle facilities on County Mobility Element roads in Semi-Rural and Rural Lands to provide a safe and continuous bicycle network in rural areas that can be used for recreation or transportation purposes, while retaining rural character.

M-11.4 **Pedestrian and Bicycle Network Connectivity.** Require development in Villages and Rural Villages to provide comprehensive internal pedestrian and bicycle networks that connect to existing or planned adjacent community and countywide networks.



REGIONAL TRAILS PLAN

San Diego County General Plan

Figure M-2

M-11.5 **Funding for Bicycle Network Improvements.** Seek outside funding opportunities for bicycle and pedestrian network improvement projects, particularly those that provide safe and continuous pedestrian and bicycle routes to schools, town centers, parks, park-and-ride facilities, and major transit stops.

Bike lane in shoulder of Old Highway 80 in the Central Mountain Subregion

M-11.6 **Coordination for Bicycle and Pedestrian Facility Connectivity.** Coordinate with Caltrans to provide alternate connections for past, existing, or planned bicycle and pedestrian routes that were or would be severed by State freeway and highway projects that intersect pathways or divide communities.

Caltrans endeavors to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility. Caltrans is committed to working with the County to complete bicycle and pedestrian facilities.

M-11.7 **Bicycle and Pedestrian Facility Design.** Promote pedestrian and bicycle facility standards for facility design that are tailored to a variety of urban and rural contexts according to their location within or outside a Village or Rural Village.

M-11.8 **Coordination with the County Trails Program.** Coordinate the proposed bicycle and pedestrian network and facilities with the Community Trails Master Plan's proposed trails and pathways.

GOAL M-12

County Trails Program. A safe, scenic, interconnected, and enjoyable non-motorized multi-use trail system developed, managed, and maintained according to the County Trails Program, Regional Trails Plan, and the Community Trails Master Plan.

Policies

M-12.1 **County Trails System.** Implement a County Trails Program by developing the designated trail and pathway alignments and implementing goals and policies identified in the Community Trails Master Plan.

M-12.2 **Trail Variety.** Provide and expand the variety of trail experiences that provide recreational opportunities to all residents of the unincorporated County, including urban/suburban, rural, wilderness, multi-use, staging areas, and support facilities.

M-12.3 **Trail Planning.** Encourage trail planning, acquisition, development, and management with other public agencies that have ownership or jurisdiction within or adjacent to the County.

M-12.4 **Land Dedication for Trails.** Require development projects to dedicate and improve trails or pathways where the development will occur on land planned for trail or pathway segments shown on the Regional Trails Plan or Community Trails Master Plan.

M-12.5 **Future Trails.** Explore opportunities to designate or construct future trails on County-owned lands, lands within the Multiple Species Conservation Program (MSCP), or other lands already under public ownership or proposed for public acquisition.

M-12.6 **Trail Easements, Dedications, and Joint-Use Agreements.** Promote trail opportunities by obtaining easements, dedications, license agreements, or joint-use agreements from other government agencies and public and semi-public agencies.

M-12.7 **Funding for Trails.** Seek funding opportunities for trail acquisition, implementation, maintenance and operation.

M-12.8 **Trails on Private Lands.** Maximize opportunities that are fair and reasonable to secure trail routes across private property, agricultural and grazing lands, from willing property owners.

M-12.9 **Environmental and Agricultural Resources.** Site and design specific trail segments to minimize impacts to sensitive environmental resources, ecological system and wildlife linkages and corridors, and agricultural lands. Within the MSCP preserves, conform siting and use of trails to County MSCP Plans and MSCP resource management plans.

M-12.10 **Recreational and Educational Resources.** Design trail routes that meet a public need and highlight the County's biological, recreational and educational resources, including natural, scenic, cultural, and historic resources.

Background Material

Level of Service

Level of service (LOS), a qualitative measure describing operational conditions within a traffic stream and the motorists' perceptions of those conditions, provides a measure of how well a road is able to meet the demands or volume of traffic. The capacity threshold of a road is the maximum number of vehicles that can traverse a uniform section of road within a specified timeframe. Road capacity for County roads is measured according to average daily traffic (ADT), while State facilities are measured according to Caltrans criteria based on peak-hour volumes that a roadway could accommodate.

San Dieguito Trail

Six LOS capacity thresholds are defined for each type of roadway, with letters A through F used to establish the LOS measure. Criteria for each LOS threshold include: speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. For example, LOS A represents free flow, almost complete freedom to maneuver within the traffic stream. LOS F represents forced flow where more vehicles are attempting to use the road facility than can be served resulting in stop and go traffic. Table M-3 (Level of Service Descriptions) provides definitions for the various LOS categories based upon typical peak traffic periods. LOS D is the standard to maintain for Mobility Element roads, unless the criteria presented in Policy M-2.1 preclude improving roads beyond LOS E/F.

Table M-3 Level of Service Descriptions	
LOS	**Description**
A	This LOS represents a completely free-flow conditions, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues forms behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

SOURCE: Highway Capacity Manual, 2000

The LOS for operating on State highways is based upon Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained.

SANDAG and the County elected to be exempt from the State Congestion Management Plan (CMP) program, which includes selected freeways, state highways, and regional arterials in the County. Existing CMP monitoring, threshold levels, guidelines and mitigation strategies will be incorporated into other SANDAG plans and/or programs as a result.

Accepted Road Classifications with Level of Service E / F

As described under Goal M-2, there are instances where the County considers it more appropriate to retain a road classification that could result in a LOS E / F rather than increase the number of travel lanes. These instances are based on criteria established under Policy M-2.1. Table M-4 (Road Segments Where Adding Travel Lanes is Not Justified) identifies the County segment where the County has determined that the adverse impacts of adding travel lanes do not justify the resulting benefit of increased traffic capacity.

Table M-4 Road Segments Where Adding Travel Lanes is Not Justified

Road	Classification	From	To
State Highways[a]			
SR 67	4.1B Major Road with Intermittent Turn Lanes	Poway city limits	Scripps Poway Pkwy. (Lakeside)
	4.1A Major Road with Raised Median	Scripps Poway Pkwy. (Lakeside)	Sycamore Park Dr. (Lakeside)
	4.1A Major Road with Raised Median	Johnson Lake Rd. (Lakeside)	Posthill Rd. (Lakeside)
	4.1B Major Road with Intermittent Turn Lanes	11th Street (Ramona)	Pine Street/SR-78 (Ramona)
SR-76/Pala Rd.[b]	4.1A: 4-Ln Major Road w/ Raised Median	Old Hwy 395 (Fallbrook)	I-15 SB Ramps (Fallbrook)
	2.1D Community Collector w/ Improvement Options	Pala Del Norte Rd. (Pala Pauma)	Sixth St (Pala Pauma)
Main Street/SR-78	4.2B: 4-Ln Boulevard w/ Intermittent Turn Lanes	9th St (Ramona)	Pine St (Ramona)
County Mobility Element Roads			
Alpine Blvd.	2.2A Light Collector w/ Raised Median	Boulder Rd. (Alpine)	Louise Dr. (Alpine)
Bancroft Dr.	2.2D Light Collector w/ Improvement Options	Troy St (Spring Valley)	SR-94 EB Ramps (Spring Valley)
Briarwood Rd.	2.1D Community Collector w/ Improvement Options	SR-54 WB Ramps (Sweetwater)	Robinwood Rd (Sweetwater)
Campo Rd.	4.2B Boulevard w/ Intermittent Turn Lanes	Kenwood Dr (Valle de Oro)	Conrad Dr (Valle de Oro)
Central Ave.	2.2B Light Collector w/ Continuous Turn Lane	Sweetwater Rd. (Sweetwater)	Bonita Rd. (Sweetwater)
	2.2C Light Collector w/ Intermittent Turn Lanes	Bonita Rd. (Sweetwater)	Frisbee St. (Sweetwater)

Table M-4 Road Segments Where Adding Travel Lanes is Not Justified			
Road	**Classification**	**From**	**To**
De Luz Rd.	2.2C Light Collector w/ Intermittent Turn Lanes	Dougherty St. (Fallbrook)	W. Mission Rd. (Fallbrook)
Deer Springs Rd.	4.1B Major Road w/ Intermittent Turn Lanes	I-15 NB Ramps (NC Metro)	N Centre City Pkwy (NC Metro)
Del Dios Hwy.	2.1D Community Collector w/ Improvement Options	El Camino Del Norte (San Dieguito)	Via Rancho Pkwy (North County Metro)
E. Mission Rd.	4.2B Boulevard w/ Intermittent Turn Lanes	Live Oak Park Rd. (Fallbrook)	I-15 SB Ramps (Fallbrook)
El Apajo.	2.1A Community Collector w/ Raised Median	Villa De La Valle (San Dieguito)	Via De Santa Fe (San Dieguito)
El Camino del Norte	2.2F Light Collector w/ Reduced Shoulder	Aliso Canyon Rd. (San Dieguito)	Del Dios Hwy./Paseo Delicias (San Dieguito)
Fuerte Dr.	2.2E Light Collector	Bancroft Dr. (Valle de Oro)	Avacado Blvd. (Valle de Oro)
Jamacha Rd.	6.2 Prime Arterial	Campo Rd/SR-94 (Valle de Oro)	Fury Ln. (Valle de Oro)
	4.1B Major Road w/ Intermittent Turn Lanes	SR-125 SB Ramps (Spring Valley)	Sweetwater Rd (Spring Valley)
La Bajada/ La Granada	2.2F Light Collector w/ Reduced Shoulder	Rancho Santa Fe Rd. (San Dieguito)	Paseo Delicias (San Dieguito)
Lake Jennings Park Rd.	4.1B Major Road w/ Intermittent Turn Lanes	I-8 Business Route (Lakeside)	I-8 WB Off-Ramp (Lakeside)
Lilac Rd.	4.2B Boulevard w/ Intermittent Turn Lanes	New Road 19 (Valley Center)	Valley Center Rd. (Valley Center)
Linea del Cielo	2.2F Light Collector w/ Reduced Shoulder	El Camino Real (San Dieguito)	Rambla de las Flores (San Dieguito)
Los Coches Rd.	2.1D Community Collector w/ Improvement Options	Woodside Ave (Lakeside)	I-8 Business Route (Lakeside)
Lyons Valley Rd.	2.2B Light Collector w/ Continuous Turn Lane	Campo Rd. (Jamul)	Skyline Truck Trail (Jamul)
Maine Ave.	2.2E Light Collector	Mapleview St (Lakeside)	Woodside Ave (Lakeside)
Mapleview St.	4.1A Major Road w/ Raised Median	Maine Ave. (Lakeside)	Ashwood St (Lakeside)
Mountain Meadow Rd./ Mirar de Valle	2.1D Community Collector w/ Improvement Options	North Broadway (NC Metro)	New Road 19 (Valley Center)
New Road 19	4.2B Boulevard w/ Intermittent Turn Lanes	Mirar de Valle Road (Valley Center)	Lilac Road (Valley Center)
Old Hwy 395	2.1D Community Collector w/ Improvement Options	5th St. (Rainbow)	Interstate 15 NB ramp (Fallbrook)
Old Hwy 395	2.1A Community Collector w/ Raised Median	Interstate 15 SB ramp (Fallbrook)	Stewart Canyon Dr. (Fallbrook)

Table M-4 Road Segments Where Adding Travel Lanes is Not Justified			
Road	**Classification**	**From**	**To**
	2.1D Community Collector w/ Improvement Options	Pala Rd. (Fallbrook)	Dublin (W) Rd. (Fallbrook)
Paradise Valley Rd.	4.1B Major Road w/ Intermittent Turn Lanes	Elkelton Blvd (Spring Valley)	Sweetwater Rd (Spring Valley)
Paseo Delicias	2.2A Light Collector w/ Raised Median	Via De La Valle (San Dieguito)	El Camino Del Norte (San Dieguito)
Pomerado Rd.	4.1A Major Road w/ Raised Median	I-15 NB Ramps (County Islands)	Willow Creek Rd. (County Islands)
Rainbow Valley Blvd. West	2.2D Light Collector	I-15 NB Ramps (Rainbow)	Old Hwy. 395 (Rainbow)
Rancho Santa Fe Road	2.2F Light Collector w/ Reduced Shoulder	Encinitas city limits	La Bajada (San Dieguito)
San Dieguito Rd.	2.1A Community Collector w/ Raised Median	El Apajo Rd. (San Dieguito)	San Diego city limits
7th St.	2.2E Light Collector	Elm St. (Ramona)	A St. (Ramona)
		Main St. (Ramona)	D St. (Ramona)
Valley Center Rd.	4.2A Boulevard w/ Raised Median	Miller Rd (Valley Center)	Indian Creek Rd (Valley Center)
Via de la Valle	2.1B Community Collector w/ Continuous Turn Lane	San Diego city limits (San Dieguito)	Las Planideras (San Dieguito)
	2.1E Community Collector	Las Planideras (San Dieguito)	Paseo Delicias (San Dieguito)
West Willows Rd.	2.2E Light Collector	Alpine Blvd (Alpine)	Viejas Grade Rd. (Alpine)
Wildcat Canyon Rd.	2.1D Community Collector w/ Improvement Options	Willow Rd. (Lakeside)	Barona Casino (Ramona)
Woods Valley Rd.	2.2C Light Collector w/ Intermittent Turn Lanes	Oakmont Rd (Valley Center)	Karibu Ln. (Valley Center)
Woodside Ave.	4.2A Boulevard w/ Raised Median	SR-67 NB Off Ramp (Lakeside)	Riverford Rd. (Lakeside)

a. The cross-sections for State Highway reflect the design in the Project Authorization/Environmental Document (PA/ED), which are different from those of the County Mobility Element road classifications.

b. Roads noted are on the Congestion Management Program (CMP). Acceptable LOS for roads on the CMP is LOS E or better.

CHAPTER 5 Conservation and Open Space Element

Introduction

Purpose and Scope

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in the County of San Diego with respect to the following:

- The conservation, management, and utilization of natural and cultural resources
- The protection and preservation of open space
- The provision of park and recreation resources

Open space is defined as any parcel or area of land or water that is essentially unimproved and devoted to open space use. There is not a specific Open space section in this Element. Open space issues are addressed in every section of this document.

Population growth and development continually require the use of both renewable and nonrenewable resources. Goals and policies provided in this General Plan Element are divided into nine sections that address the following:

- *Biological Resources*—Land use-based conservation goals and policies that protect the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats.
- *Water Resources*—Conserve and efficiently use water and protect the groundwater aquifer, water bodies, and water courses, which include reservoirs, rivers, streams, and the watersheds located throughout the region.
- *Agricultural Resources*—Minimize land use conflicts, preserve agricultural resources, and support the long-term presence and viability of agricultural industry as an important component of the region's economy and open space linkage.
- *Cultural Resources*—Federal and State legislation such as the *National Environmental Policy Act* (NEPA), *National Historic Preservation Act* (NHPA), and *California Environmental Quality Act* (CEQA) establish requirements to ensure cultural resources are protected and preserved. This section supplements this legislation with goals and policies that set the framework for local ordinances and regulations that protect these important cultural resources.
- *Paleontological Resources and Unique Geologic Features*—Preserve the County's rich geologic and paleontological history by establishing achievable land-use-based goals and policies.
- *Mineral Resources*—Manage the remaining mineral deposits while striving to ensure that adequate resources are available to support the economic prosperity of future generations of San Diego County residents.
- *Visual Resources*—Protect scenic corridors, geographically extensive scenic viewsheds, and dark skies within the natural environment.
- *Air Quality, Climate Change, and Energy*—Reduce the emissions of criteria air quality pollutants, emissions of greenhouse gases, and energy use in buildings and infrastructure, while promoting the use of renewable energy sources, conservation, and other methods of efficiency.

- *Park and Recreation Facilities*—Ensure that adequate park and recreational facilities will adequately serve current and future residents.

Guiding Principles for Conservation and Open Space

The Guiding Principles for the General Plan are introduced in Chapter 2. Guiding Principles 3, 4, 7 and 8 are relevant to the Conservation and Open Space Element. The conservation of natural resources and the preservation of open space are essential actions required to realize the overall vision of this General Plan, along with the achievement of the County's strategic initiatives.

The Conservation and Open Space Element establishes goals, policies, and programs that value and protect natural resources to ensure they are available for the future. Primary objectives of the Conservation and Open Space Element are to preserve the diverse range of visual, natural, and cultural resources that exemplify the County. The Element strives to minimize the impact of future development in areas with significant visual, natural, and cultural resources and supports the creation and enhancement of important habitat preserves and open space areas that are well managed and maintained. The Element also promotes efficient use of water and other natural resources and strives to ensure the long-term sustainability of non-renewable resources. The Element also supports the preservation and creation of parks, recreational facilities, and open spaces.

Energy production, transportation, and consumption are key contributors to greenhouse gases affecting climate change, poor local air quality, and a variety of other sustainability challenges. The Conservation and Open Space Element encourages and supports land use development patterns and transportation choices that reduce pollutants and greenhouse gases. In addition, the Element encourages renewable energy production, along with efficient energy use in buildings and infrastructure and minimizes the impacts of projects that can generate air pollutants.

The Conservation and Open Space Element also sets forth goals and polices that minimize agricultural land use conflicts and support the long-term presence and viability of the County's agricultural industry.

Relationship to Other General Plan Elements

The effectiveness of the Conservation and Open Space Element depends upon its integration with the other elements comprising this General Plan. Elements that share topics, issues, and policy direction with the Conservation and Open Space Element include Land Use, Mobility, Housing, Noise, and Safety.

Primary objectives of the Land Use Element are to minimize future development in areas with significant natural resources that are identified in the Conservation and Open Space Element; along with areas that may be affected by natural hazards that are identified in both the Conservation and Open Space and Safety Elements. In addition, the Land Use Element encourages the development of vibrant and healthy communities, of which park and recreation facilities are an integral part. The Land Use Element also balances the availability of water with future development, while the Conservation and Open Space Element establishes policies that protect and conserve water resources to ensure they are available for future supplies. The Land Use and Mobility Elements also include goals and policies that address Climate Change by fostering land use patterns that facilitate a reduction in vehicle miles traveled and by planning for

transportation networks that encourage other modes of travel rather than the single-occupant motor vehicle.

The purpose of the Safety Element is to establish policies related to future development that will minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural hazards, as identified in both the Conservation and Open Space and Safety Elements. The Safety Element identifies floodplain locations throughout the County, while Figure C-2 (Floodwater Accommodation) identifies the rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management. The Mobility Element includes regional trails and bikeways, which are major recreational assets for the region.

This Element also has connections to the Housing and Noise Elements. Regarding the Housing Element, the goals and policies contained in this Element affect where and how housing is planned and developed, such as requiring development to avoid sensitive resources. With regard to noise issues, biological resources can be adversely affected by noise. Additionally, the mining of mineral resources typically has noise, traffic, air, and groundwater impacts that must be addressed.

Goals and Policies for Conservation and Open Space Element

Biological Resources

CONTEXT

The San Diego region is recognized as one of the most biologically important areas in the United States, and one of the most biologically diverse areas in the world.[1] The diversity of species found in the San Diego region can be attributed to the wide variety of vegetation and habitats associated with the region's range of micro-climates, topography, soils, and other natural features. Unincorporated lands comprise the largest geographical area in the County with natural features that include lagoons, foothills, mountain ranges, and deserts. Today, the San Diego region supports over 400 sensitive plants and animals, ranging in sensitivity from common to critically endangered. All of this diversity is part of the San Diego region's unique natural heritage and a legacy for future generations.

HABITATS & SPECIES

The physical and climatic conditions found in the San Diego region provide for a wide variety of habitats and biological communities. These communities are associations of plants, animals, fungi, and microbes. Different habitat types may occur separately or be intermixed, but because they have different characteristics, they often support unique assemblages of species.

[1] Dobson, A.P., J.P. Rodriquez, W.M. Roberts, and D.S. Wilcove. 1997 Geographic Distribution of Endangered Species in the United States. Science 275(5299): 550-553.

The San Diego region's unique attributes have resulted in a relatively large number of endemic species in the area, that is, species that are only found in a limited geographic location. For example, 26 plant species in the County are found nowhere else in the world[2]. When combined with habitat loss from urban, rural, and agricultural development, the result is that the County is home to an exceptional number of rare, threatened, endangered, or otherwise sensitive species. Both wildfire events and invasive plant and animal species further disrupt native habitat regeneration and pose a threat to conservation of native habitat and endemic species.

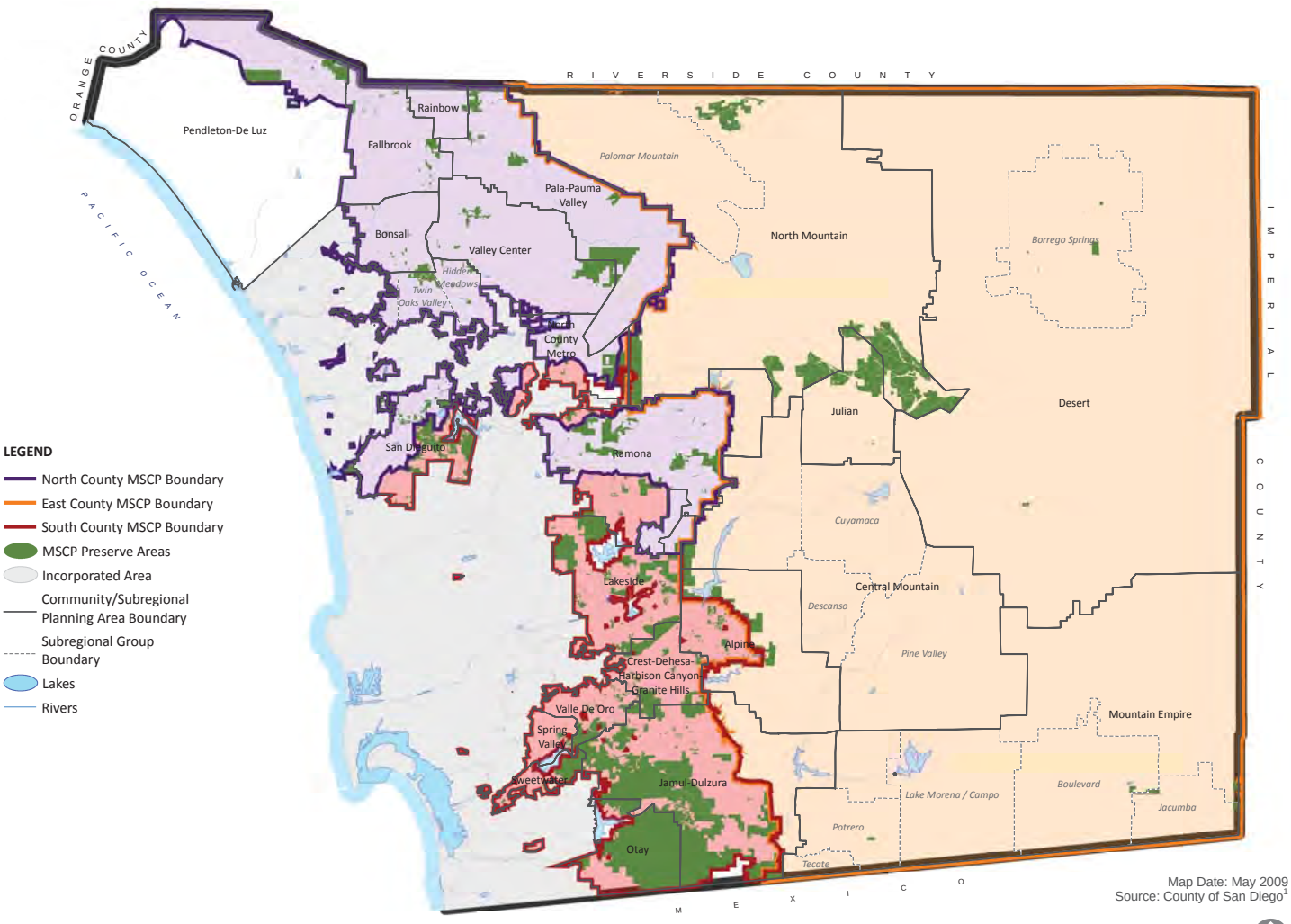
Waterways and their associated riparian vegetation provide important habitat values for wildlife, including several rare species of birds. Moreover, wetlands provide important water quality functions such as pollutant removal, floodwater retention, and greenhouse gas reduction. Valuable wetland resources in the County have been reduced from past development such that they must be protected, along with adjacent upland habitats, to maintain their functions and values.

Protecting the region's resources requires coordination and cooperation with other governmental and non-governmental entities, such as SANDAG, adjacent jurisdictions, California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, California Regional Water Quality Control Board, California Coastal Commission, and various conservation organizations.

WILDLIFE CORRIDORS AND HABITAT LINKAGES

Significant portions of the County are publicly owned, including areas designated as open space preserves and parks, National Forests, and State Parks. The County strives to work harmoniously with all such entities to achieve common goals. Important wildlife corridors and linkages have been identified to provide connections between areas of undeveloped lands, especially to significant public lands. Species that are well-distributed across their ranges are less susceptible to extinction than species confined to small portions of their range. Therefore, maintaining large, inter-connected blocks of habitat containing sizable and diverse populations of sensitive species is superior to a fragmented landscape with undersized populations. Figure C-1 (Habitat Conservation Programs) identifies existing preserve areas, along with areas where a connected system of preserves will be established as additional easements are recorded for open space and/or lands are acquired for public benefit.

[2] http://www.sdnhm.org/research/botany/sdplants/preface.html



HABITAT CONSERVATION PROGRAMS

San Diego County General Plan

Figure C-1

Wildlife corridors and linkages function better when they support sufficient native habitat conducive for wildlife movement. Linkages are landscape level, regional connections between core habitat areas. They consist of a variety of upland and riparian habitat types which provide resources for year-around foraging, nesting, and local dispersal. Corridors are more local movement paths for species that typically follow naturally occurring paths.

Escondido Creek serves as a wildlife corridor in the San Dieguito Community Planning Area

The San Diego region is an important part of the Pacific Flyway, one of the major migration routes for birds between Alaska and Central and South America. Some migrant birds use parts of the County as winter habitat or as stopover sites for resting and feeding. Stopover sites are just as critical to bird conservation as breeding habitat. Many spring migrants coming north from the Gulf of California or along the west coast of mainland Mexico use the San Diego region, with its comparatively low mountains, as a corridor for crossing the mountains to reach the Pacific coast.

Local migration of birds and other wildlife is also important. For example, in the San Diego region, western bluebirds breed in the mountains but migrate to the coastal lowlands and other warmer regions for the winter. Many of the larger mammals in the County, such as mountain lions, mule deer, and bobcats, move between blocks of habitat as part of their daily routine searching for food, water, and shelter. Inter-connected habitats are also important to prevent isolation of populations of plants and animals.

GOALS AND POLICIES

GOAL COS-1

Inter-Connected Preserve System. A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.

Policies

COS-1.1 **Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

Gnatcatcher

COS-1.2 **Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.

COS-1.3 **Management.** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

COS-1.4 **Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

COS-1.5 **Regional Funding.** Collaborate with other jurisdictions and federal, state, and local agencies to identify regional, long-term funding mechanisms that achieve common resource management goals.

COS-1.6 **Assemblage of Preserve Systems.** Support the proactive assemblage of biological preserve systems to protect biological resources and to facilitate development through mitigation banking opportunities.

COS-1.7 **Preserve System Funding.** Provide adequate funding for assemblage, management, maintenance, and monitoring through coordination with other jurisdictions and agencies.

COS-1.8 **Multiple-Resource Preservation Areas.** Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.

COS-1.9 **Invasive Species.** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.

COS-1.10 **Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

COS-1.11 **Volunteer Preserve Monitor.** Encourage the formation of volunteer preserve managers that are incorporated into each community planning group to supplement professional enforcement staff.

GOAL COS-2

Sustainability of the Natural Environment. Sustainable ecosystems with long-term viability to maintain natural processes, sensitive lands, and sensitive as well as common species, coupled with sustainable growth and development.

Policies

COS-2.1 **Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

The preservation of existing native plants and the planting of a variety of native (genetically locally adapted) or compatible non-native, non-invasive plant species enhance wildlife habitat areas.

COS-2.2 **Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

GOAL COS-3

Protection and Enhancement of Wetlands. Wetlands that are restored and enhanced and protected from adverse impacts.

Policies

COS-3.1 **Wetland Protection.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

COS-3.2 **Minimize Impacts of Development.** Require development projects to:

- Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
- Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

Water Resources

CONTEXT

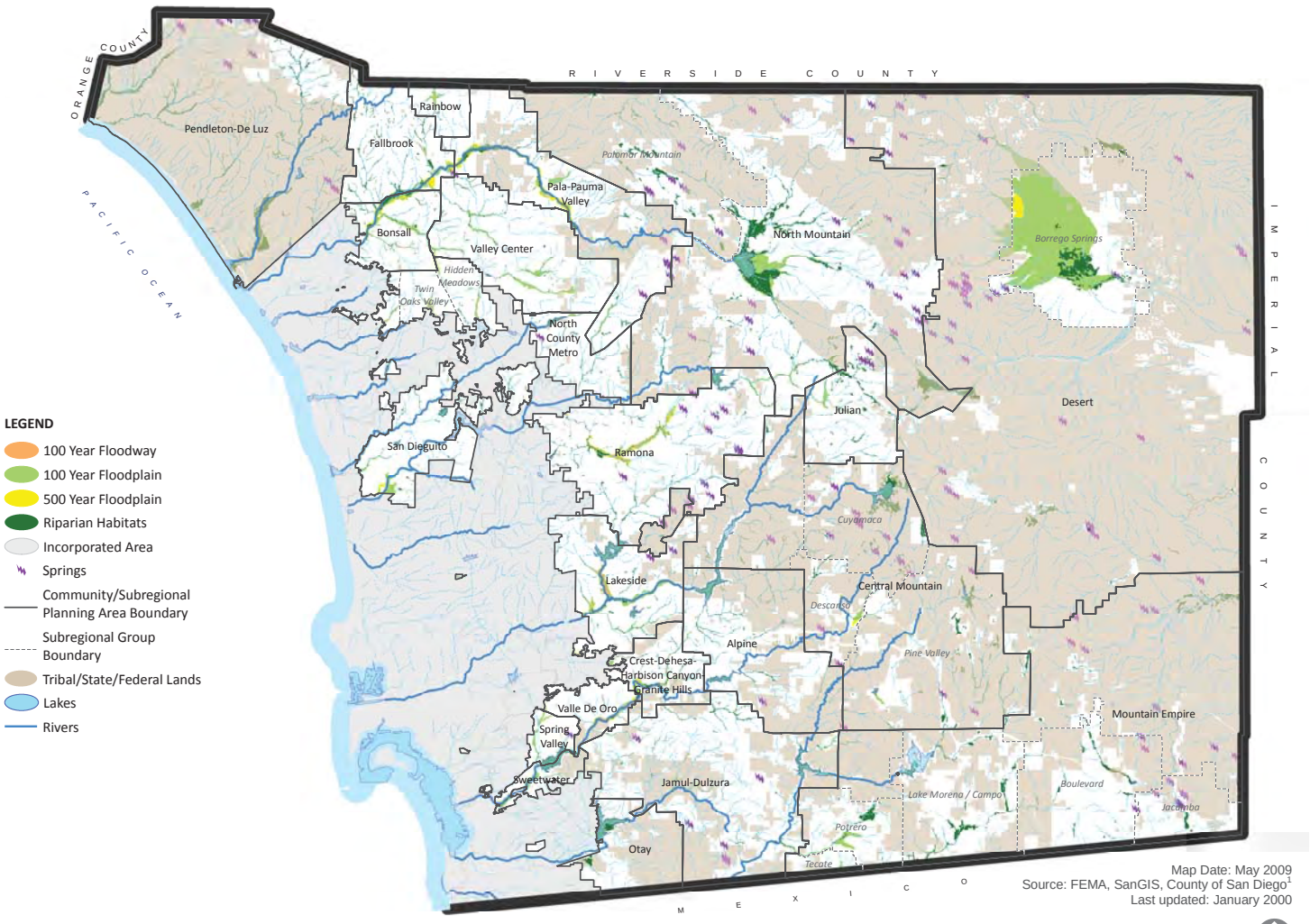
The County relies upon a safe and reliable supply of this most basic necessity for its quality of life and economic prosperity. Not only do the County's clean water resources provide drinking water, but they also sustain the County's rich natural environment. Water resources may be classified as surface water, which collects in streams, rivers, lakes, reservoirs and groundwater, which resides in subsurface aquifers.

While surface water can drain through the County's watersheds, it can also be infiltrated into the subsurface saturated zone to become groundwater, a resource that many residents of the unincorporated County depend upon. Aquifers are recharged at varying rates depending upon a number of factors, primarily the amount and frequency of rainfall. On average, the County's coastal areas see less than ten inches of rain per year, the mountain peaks in excess of 40 inches, and the deserts less than three inches. Not only must the County have sufficient quantities of groundwater, but the water must also be of a sufficient quality. Figure C-2 (Floodwater Accommodation) identifies the rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

Watersheds facilitate the collection and transportation of sediments and pollutants that can degrade water quality and damage downstream environments. Lakes and reservoirs capture flows from many of these watersheds. Watershed management relates to sustaining watersheds at an acceptable level of quality, contributing to resource surface and subsurface quality, and maintaining groundwater supplies.

The County of San Diego is divided into two hydrologic regions—the Colorado Hydrologic Region (CHR) which drains in an easterly direction into the Salton Sea and the San Diego Hydrologic Region (SDHR) which drains in a westerly direction toward the Pacific Ocean and encompasses most of the County, parts of southwestern Riverside County and southwestern Orange County. The watersheds, areas into which surface run-off, streams, creeks, and rivers drain, in the County of San Diego are shown on Figure C-3 (Watersheds).

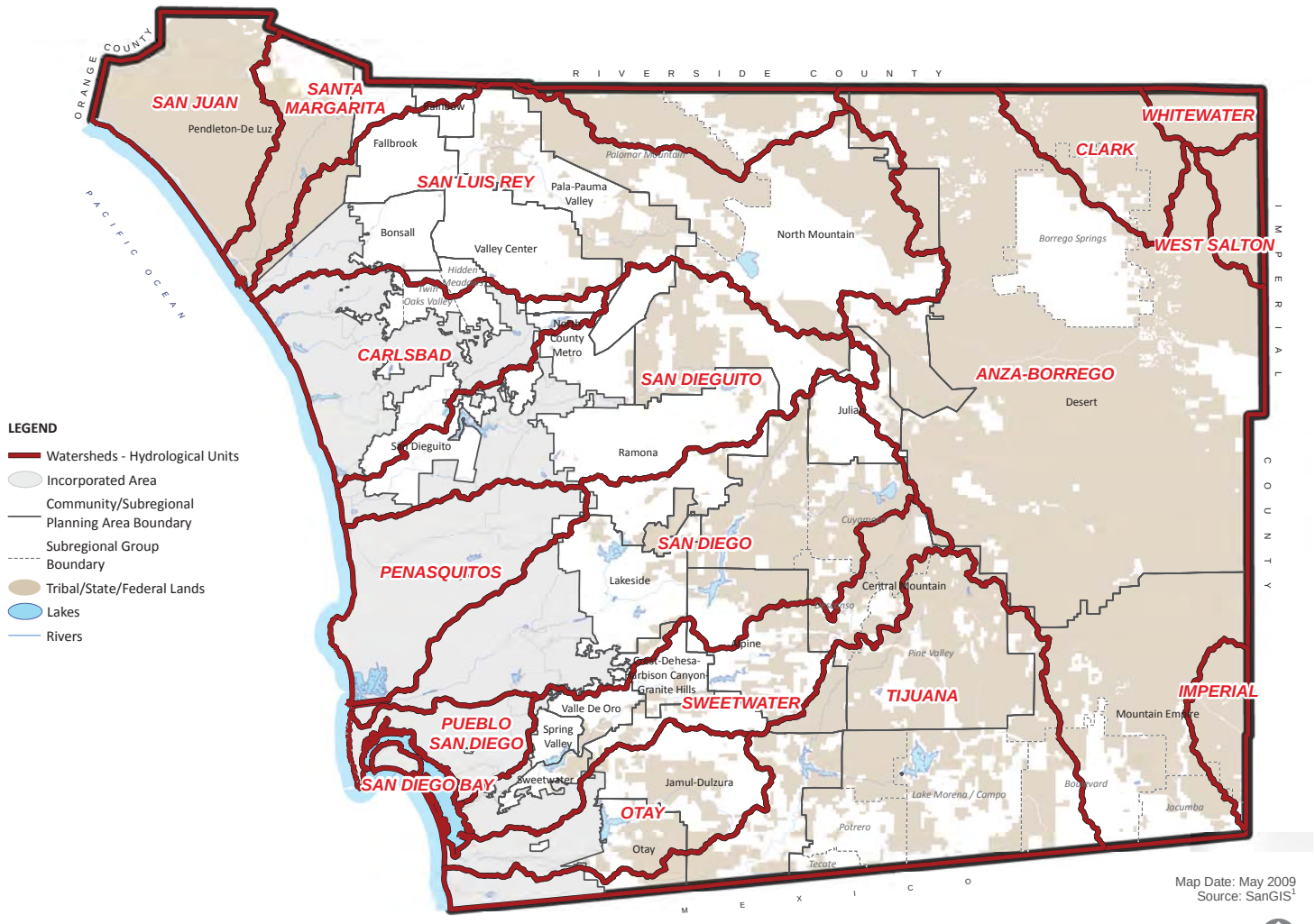
Lake Jennings



FLOODWATER ACCOMMODATION

San Diego County General Plan

Figure C-2



WATERSHEDS

San Diego County General Plan

Figure C-3

Groundwater aquifers and local surface water reservoirs are of great importance to providing an adequate water supply for communities that are not served by imported water. It is critical to protect the water quality found in the local drinking water reservoirs and aquifers to ensure a continual source of drinking water, as well as increasing local supplies through recycling and conservation efforts. Imported supplies also help to replenish local groundwater basins. The City of San Diego has seven water reservoirs in the unincorporated County that are crucial to protecting habitat. These reservoirs include Barrett, El Capitan, Hodges, Morena, Otay, San Vicente, and Sutherland.

The Metropolitan Water District of Southern California imports water from the Colorado River and Northern California. This water is distributed to water purveyors in San Diego County. The Metropolitan Water District (MWD) sets the targets for lowering demands and securing the necessary supplies in the Integrated Resources Plan (IRP). The so-called "Preferred Resource Mix" is identified based on extensive technical modeling, IRP workgroups, and stakeholder involvement. The 2004 MWD IRP assumed that new local efforts—both increasing supplies and lowering demands—would meet the needs of population growth. Given the challenges facing imported supplies, it is widely expected that the 2009 IRP will have an even greater focus on control of demand through recycling and conservation efforts. (For additional information on water supply and how agencies are planning to meet future demands, refer to the Land Use Element, Community Services and Infrastructure section.)

GOALS AND POLICIES

GOAL COS-4

Water Management. A balanced and regionally integrated water management approach to achieve the long-term viability of the County's water quality and supply.

COS-4.1 **Water Conservation.** Require development to reduce the waste of potable water through use of efficient technologies and conservation efforts that minimize the County's dependence on imported water and conserve groundwater resources.

COS-4.2 **Drought-Efficient Landscaping.** Require efficient irrigation systems and in new development encourage the use of native plant species and non-invasive drought tolerant/low water use plants in landscaping.

COS-4.3 **Stormwater Filtration.** Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces. This policy shall not apply in areas with high groundwater, where raising the water table could cause septic system failures, moisture damage to building slabs, and/or other problems.

COS-4.4 **Groundwater Contamination.** Require land uses with a high potential to contaminate groundwater to take appropriate measures to protect water supply sources.

Potential sources of groundwater contamination include, but are not limited to, landfills, fertilizer, pesticide, manure storage and sales, petroleum product storage tanks, manufacturing plants, and on-site wastewater treatment systems.

COS-4.5 **Recycled Water.** Promote the use of recycled water and gray water systems where feasible.

GOAL COS-5

Protection and Maintenance of Water Resources. Protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high-quality water resources.

Water conservation is also addressed in Goal COS-19 in the "Air Quality, Climate Change, and Energy" section below.

Policies

COS-5.1 **Impact to Floodways and Floodplains.** Restrict development in floodways and floodplains in accordance with policies in the Flood Hazards section of the Safety Element.

Development in floodways and floodplains has the potential to alter natural hydrologic flow and cause soil erosion and increased stormwater runoff—including loss of wetland and health issues related to surface and groundwater contamination.

COS-5.2 **Impervious Surfaces.** Require development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

Impervious surface area impairs groundwater recharge and contributes to stormwater runoff and heat retention.

COS-5.3 **Downslope Protection.** Require development to be appropriately sited and to incorporate measures to retain natural flow regimes, thereby protecting downslope areas from erosion, capturing runoff to adequately allow for filtration and/or infiltration, and protecting downstream biological resources.

COS-5.4 **Invasive Species.** Encourage the removal of invasive species to restore natural drainage systems, habitats, and natural hydrologic regimes of watercourses.

COS-5.5 **Impacts of Development to Water Quality.** Require development projects to avoid impacts to the water quality in local reservoirs, groundwater resources, and recharge areas, watersheds, and other local water sources.

Protecting reservoir water quality requires that the quality of the water entering the reservoirs is maintained or improved. Pollutants of high concern are nutrients and related algae, total organic carbon, and total dissolved solids.

Agricultural Resources

CONTEXT


Agricultural uses in Julian

The County of San Diego is the only major urban county with a farm gate value[3] consistently ranked among the top ten agricultural counties (ranked eight for several years) in California.[4] The County has the fourth highest number of farms of any county in the country and third highest number of farms of any county in California.[5] Agriculture is the fifth largest component of the County's economy.[6] Agriculture in the County provides an array of economic, environmental, and social benefits that contribute to the quality of life in the region. Agriculture also provides a valuable open space resource and plays a critical role in regional wildlife conservation by providing usable open space corridors and habitat for some species.

The County of San Diego is the only major urban county with a farm gate value[7] consistently ranked among the top ten agricultural counties (ranked eight for several years) in California.[8] The County has the fourth highest number of farms of any county in the country and third highest number of farms of any county in California.[9] Agriculture is the fifth largest component of the County's economy.[10] Agriculture in the County provides an array of economic, environmental, and social benefits that contribute to the quality of life in the region. Agriculture also provides a valuable open space resource and plays a critical role in regional wildlife conservation by providing usable open space corridors and habitat for some species.

The resources that support the County's agriculture are unique. Unlike other jurisdictions across the nation, farming in San Diego is dependent upon the region's unusual microclimates and often has very little

[3] The farm gate value of a cultivated product in agriculture or aquaculture is the net value of the product when it leaves the farm, after marketing costs have been subtracted. Since many farms do not have significant marketing costs, it is often understood as the price of the product at which it is sold by the farm (the farm gate price). The farm gate value is typically lower than the retail price consumers pay in a store as it does not include costs for shipping, handling, storage, marketing and profit margins of the involved companies.
[4] Source: USDA National Agricultural Statistics Service, Summary of California County Agricultural Commissioners' Reports, 2004-2005.
[5] Source: USDA National Agricultural Statistics Service, Census of Agriculture, 2002.
[6] Source: San Diego Regional Chamber of Commerce, 2006.

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[8] Source: USDA National Agricultural Statistics Service, Summary of California County Agricultural Commissioners' Reports, 2004-2005.
[9] Source: USDA National Agricultural Statistics Service, Census of Agriculture, 2002.
[10] Source: San Diego Regional Chamber of Commerce, 2006.

relationship to the quality of the soils. Much of the County's climate supports a year-round growing season that facilitates successful small farms and crop diversification producing over 200 agricultural commodities including high value specialty crops, nursery products, and a variety of fruits. Only six percent of the San Diego region's soils are classified as prime agricultural soils. The small percentage of prime soils, the small farm size, and the high value of agriculture in the region highlights the uniqueness of farming in the County.

A number of issues create pressures and stresses for the ongoing success of agriculture. These include conflicts associated with the urban/agricultural interface, land use pressures, water quality issues, and the high economic cost of operation. In addition, agricultural resources are particularly important in riverbeds, but face conflicts with aggregate resource extraction and wildlife corridor protection. These, among other issues, have increased the economic and social pressures faced by San Diego's farmers and represent a challenge to the future success of the County's agricultural industry.

Agriculture is the fifth largest industry in San Diego County

GOALS AND POLICIES

GOAL COS-6

Sustainable Agricultural Industry. A viable and long-term agricultural industry and sustainable agricultural land uses in the County of San Diego that serve as a beneficial resource and contributor to the County's rural character and open space network.

The agriculturally rich Pala-Pauma Valley

Policies

COS-6.1 **Economic Diversity.** Support the economic competitiveness of agriculture and encourage the diversification of potential sources of farm income, including value added products, agricultural tourism, roadside stands, organic farming, and farmers markets.

Agriculture in semi-rural area near Ramona

COS-6.2 **Protection of Agricultural Operations.** Protect existing agricultural operations from encroachment of incompatible land uses by doing the following:

- Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations
- Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses

- Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development.
- Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture
- Supporting local and State right-to-farm regulations
- Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process

Discourage development that is potentially incompatible with intensive agricultural uses, including schools and civic buildings where the public gather, daycare facilities under private institutional use, private institutional uses (e.g., private hospitals or rest homes), residential densities higher than two dwelling units per acre, and offices and retail commercial.

COS-6.3 **Compatibility with Recreation and Open Space.** Encourage siting recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses.

Recreational and open space uses can serve as an effective buffer between agriculture and development that is potentially incompatible with agriculture uses.

COS-6.4 **Conservation Easements.** Support the acquisition or voluntary dedication of agriculture conservation easements and programs that preserve agricultural lands.

In addition to their economic value, agricultural lands provide the added benefit of serving as habitat areas for sensitive animal species.

COS-6.5 **Best Management Practices.** Encourage best management practices in agriculture and animal operations to protect watersheds, reduce GHG emissions, conserve energy and water, and utilize alternative energy sources, including wind and solar power.

Cultural Resources

CONTEXT

Our cultural past has helped shape our present community and will continue to create our future. Archaeological and historic resources, known collectively as cultural resources, are the tangible or intangible remains left by ancestral people who made and used them. Cultural resources, found throughout the County of San Diego, are irreplaceable reminders of the County's prehistoric and historic past that continues to have value for communities today. These resources can provide clues to prehistoric and historic human behaviors, and provide scientific, religious, and other valuable educational information about our cultural past. In addition, these resources such as

One of the historical sites listed on the San Diego County Historic Property Listing, the Somers-Linden Farmhouse was constructed between 1891 and 1892.

sacred places and traditional cultural properties continue to influence and have value for the County's living tribal people. The cultural environment encompasses both the built (post-1769) and the archaeological environments, which include both prehistoric and historic archaeological sites. Cultural resources are found throughout the County and include not only physical evidence of the past such as Native American rock shelters, and pictographs but the intangible evidence such as traditional cultural lands and sacred sites. Examples of historic cultural resources (the built environment) include homes, barns, bridges, fountains, and silos. In 2008, the County of San Diego had more than 23,000 recorded cultural resource sites and this number continues to grow.

GOALS AND POLICIES

GOAL COS-7

Protection and Preservation of Archaeological Resources. Protection and preservation of the County's important archeological resources for their cultural importance to local communities, as well as their research and educational potential.

Policies

COS-7.1 **Archaeological Protection.** Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.

The importance of archaeological resources must be evaluated from the perspective of the affected community, including local tribes, in addition to the definitions contained in the California Public Resources Code. Input from the affected community on the importance of cultural resources through the consultation process is important in determining what resources should be preserved and what constitutes appropriate mitigation.

COS-7.2 **Open Space Easements.** Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.

Avoidance of archaeological resources is normally achieved through the design of the development project in conjunction with the use of open space easements that protect the resources. If complete avoidance is not possible, other forms of mitigation, including data recovery excavations and the incorporation of archaeological features into the project design on a case-by-case basis may be appropriate. The determination of what constitutes adequate mitigation should be based on meaningful consultation with the affected community, including local tribes.

COS-7.3 **Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner

The determination of what constitutes appropriate treatment and preservation of archaeological collections should be based on existing federal curation standards in combination with consultation with the affected community, such as the tribes. Many collections should be placed in a local collections curation facility that meets federal standards per 36 CFR Part 79. The proper storage and treatment of these collections should also be based on consultation with the affected community, such as the tribes. In addition, existing federal and state law governs the treatment of certain cultural items and human remains, requires consultation, and in some circumstances, repatriation. The County is committed to conduct an inventory of collections it holds or are held by cultural resources consulting firms.

COS-7.4 **Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.

Consultation should take place with the affected communities concerning the appropriate treatment of cultural resources, including archaeological sites, sacred places, traditional cultural properties, historical buildings and objects, artifacts, human remains, and other items. The County is required by law, Senate Bill 18 Protection of Traditional Tribal Cultural Places (SB-18), to consult with the appropriate tribes for projects that may result in major land use decisions including General Plans, General Plan Amendments, Specific Plans and Specific Plan Amendment. In addition to these types of permits, it is County policy to consult with the appropriate tribes on all other projects that contain or are likely to contain, archaeological resources. Consultation may also include active participation by the tribes as monitors in the survey, testing, excavation, and grading phases of the project.

COS-7.5 **Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State and County Regulations.

Human remains, including ancestral Native American remains, should be left undisturbed and preserved in place whenever possible. For most development permits, this is required by the County's Resource Protection Ordinance. In the event that human remains are discovered during any phase of an archaeological investigation, the requirements of State and local laws and ordinances, including notification of and consultation with appropriate tribal members, must be followed in determining what constitutes appropriate treatment of those remains.

COS-7.6 **Cultural Resource Data Management.** Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.

This database should be accessible to all qualified individuals while maintaining the confidentiality of the location and nature of sensitive cultural resources, such as archaeological sites. The County maintains a partnership with the local repository of the database, the South Coastal Information Center at San Diego State University, which provides direct access by qualified County personnel to the database so that the information it contains may be used to design development projects to avoid cultural resources at an early point in the process.

GOAL COS-8

Protection and Conservation of the Historical Built Environment. Protection, conservation, use, and enjoyment of the County's important historic resources.

Policies

COS-8.1 **Preservation and Adaptive Reuse.** Encourage the preservation and/or adaptive reuse of historic sites, structures, and landscapes as a means of protecting important historic resources as part of the discretionary application process, and encourage the preservation of historic structures identified during the ministerial application process.

Historic buildings, objects, trails, landscapes and districts are important parts of the multi-cultural heritage of San Diego County and should be preserved for the future enjoyment and education of the County's diverse populations. Preservation and adaptive reuse of these resources should be encouraged during the planning process and an emphasis should be placed on incentives for preservation, such as the Mills Act property tax program, in addition to restrictions on development, where appropriate.

Alpine Women's Club is located in the former Alpine Hall built in 1899

COS-8.2 **Education and Interpretation.** Encourage and promote the development of educational and interpretive programs that focus on the rich multicultural heritage of the County of San Diego.

The County should continue to develop educational and interpretive programs that focus on the history of San Diego County, including but not limited to the important historical resources located on County parks, such as the Adobe at Rancho Penasquitos and Rancho Guajome. Such programs should be for residents and visitors of all ages from all communities and should include docent and self-guided tours, interpretive signage, kiosks, informational pamphlets, books and other audio-visual materials.

Paleontological Resources and Unique Geological Features

CONTEXT

PALEONTOLOGICAL RESOURCES

Paleontological resources are the fossilized remains and/or traces of prehistoric life—both plant and animal—as well as sedimentary formations in which they occur and the locations where they may be collected. Fossils are generally older than 10,000 years, a temporal boundary marking the end of the glacial Pleistocene Epoch and the beginning of the warmer Holocene Epoch in which we live today. For planning purposes, paleontological resources exclude human remains, which are considered cultural resources.

In the San Diego region, fossils typically occur in undisturbed sedimentary rock layers beneath the soil and sometimes may be found in surface outcrops. These fossils are limited and non-renewable. They are considered unique and worthy of preservation when they contain a unique or unusual assemblage of fossil organisms, provide paleo-biological information, provide insight to prehistoric life, or are the best example of its kind in the region.

The County can be divided into three distinct geomorphic regions—the Coastal Plain, the Peninsular Ranges, and the Salton Trough (the desert). Each region is characterized by different climatic, topographic, biological, and geologic settings. Correspondingly, each region contains geologic deposits that are associated with particular types of fossils, some of which are unique within the context of California and even the United States. Since fossils form in sedimentary rocks, most of the fossils in the San Diego region are in the Coastal Plain and Salton Trough strata. In the plutonic Peninsular Ranges, fossils occur only in valleys and other environments where material eroded from the mountains was transported down hill and deposited.

UNIQUE GEOLOGICAL RESOURCES

The San Diego region has a rich geologic history. Unique geological features are those that are locally or regionally unique in the context of the geologic history of California. They may include particular rocks or strata that explain or result from geologic processes that have affected the County and that lend themselves to scientific study.

The present landforms that characterize the San Diego region are the result of a series of geologic events spanning millions of years. These events include intrusive emplacement of magma, regional volcanism, large-scale erosion, river- and ocean-derived sedimentation, local faulting and uplift, and hydrothermal processes. The scale of some of the resulting unique geologic features, such as entire rock formations, can be much larger than the scale of other natural resources in the County. The conservation/preservation of these large-scale features is not necessarily needed or desired, as long as examples of them remain represented in the County. The County defines a "unique geologic feature" as a site that exhibits distinctive characteristics, is exclusive to the region, or provides a key piece of geologic information important in the study of geology or geologic history. Examples may include unique rock outcrops (e.g., natural bridge), type localities of named geologic formations (e.g., type locality of Scripps Formation in the sea cliffs north of Scripps Institute of Oceanography), information-rich geologic exposures (e.g., cliff face exposing faulted sedimentary layers), or unique landform (e.g., Round Mountain in Jacumba Valley, which represents a volcanic plug).

GOALS AND POLICIES

GOAL COS-9

Educational and Scientific Uses. Paleontological resources and unique geologic features conserved for educational and/or scientific purposes.

Policies

COS-9.1 **Preservation.** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.

COS-9.2 **Impacts of Development.** Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.

Mineral Resources

CONTEXT

Mineral resources are vital to community development and economic prosperity and also support recreational, educational, and scientific pursuits. The County's supply of accessible mineral resources is finite and exhaustible. Management of the remaining mineral deposits is important to ensure adequate resources are available to support the economic prosperity of future generations of County citizens.

MINERAL RESOURCES OF SAN DIEGO COUNTY

The State Geologist has classified certain areas of the County as underlain by significant mineral deposits. These areas are identified as Mineral Resource Zone 2 (MRZ-2) on the maps prepared by the California Geological Survey (Figure C-4 [Mineral Resource Zones]). Some of these areas have also been designated by the State Mining and Geology Board as containing mineral resources of "statewide or regional significance."

The term "mineral resource" refers to a concentration or occurrence of a naturally occurring material in such form or amount that economic extraction of a commodity is currently potentially feasible. In San Diego County, there are three general categories of important mineral resources, including construction materials, industrial and chemical mineral materials, and metallic and rare materials. Although mineral resources of all types are economically important, the continued availability of construction aggregate for the development of roads, homes, buildings, and other infrastructure is essential to the economy of the County. While the County is underlain by vast quantities of mineral deposits from which aggregate can be produced, urban development has encroached upon many existing and potential future mining sites. This development and other non-compatible land uses has reduced or eliminated access to many of the local important mineral deposits.

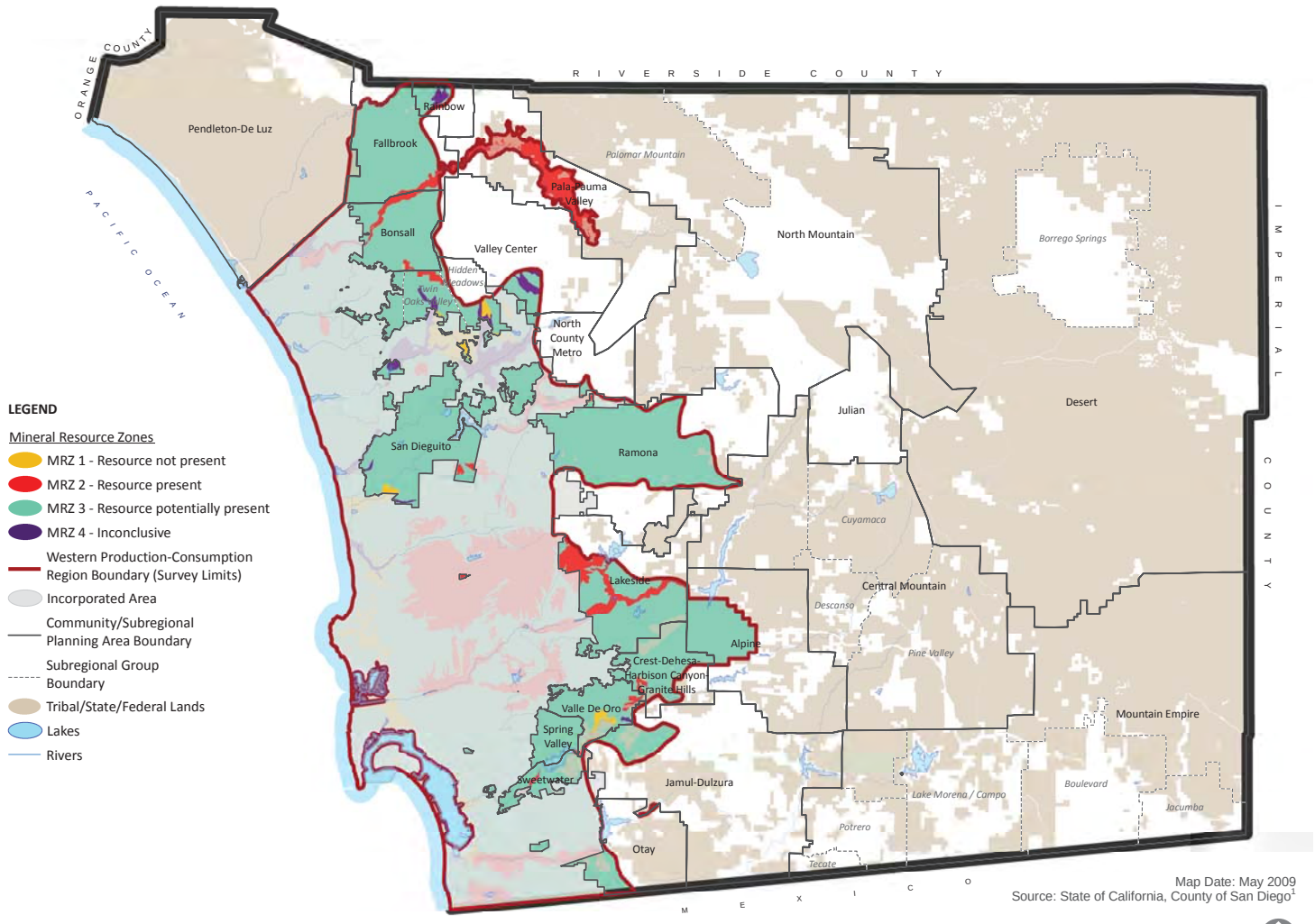
Two mineral classification reports have been completed for San Diego County; these include (1) Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region[11] and (2) Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region.[12] The latter 1996 report concluded that aggregate reserves significantly decreased since the 1982 study and that Portland cement concrete (PCC)-grade aggregate reserves within Western San Diego County were enough to supply the demand for 20 years (until 2016). The report further concluded it was unlikely all identified resources would be mined as access to resources could be substantially restricted by competing conservation measures, such as the MSCP program.

As a result, few new mining sites have been recently permitted in the County and the aggregate production rate from existing local mining sites has not kept pace with demand. The total permitted aggregate resources as of January 2006 were 198 million tons, a 28 percent decrease from January 2001.[13] The permitted aggregate resources represent only 17 percent of the 50-year estimated demand (year 2006 to 2056) of 1,164 million tons. To meet demand, substantial volumes of aggregate are being imported from quarries located outside of San Diego County. Due to increased transportation costs, the price for aggregate in the County is among the highest in the State of California. The total permitted area of local mining facilities contains less than a 50-year supply of aggregate for the County. Thus, maintaining access to mineral resources, especially the remaining undeveloped MRZ-2 classified lands, is important for the future economic activity of the County.

PERMITTING AND RECLAMATION OF MINING SITES

In order for a new mining site to be operated, the California *Surface Mining and Reclamation Act* (SMARA) requires that a permit is granted by the local lead agency (the County), and a Reclamation Plan prepared

[11] Kohler, S.L. & Miller, R.V. (1982). California Department of Conservation, Special Report 153
[12] Davis, James F. (1996). California Department of Conservation, DMG Open-File Report 96-04
[13] California Geological Survey (2006), Map Sheet 52 – Aggregate Availability in California



MINERAL RESOURCE ZONES

San Diego County General Plan

Figure C-4

consistent with the minimum standards for reclamation listed in Article 9, Section 3700 et seq. of the State Mining and Geology Board reclamation regulations. The Reclamation Plan is subject to approval by the County in coordination with the California Department of Conservation.

RECYCLING OF CONSTRUCTION MATERIALS

Although not a mining activity, the recycling of construction materials collected from demolished buildings, roadways, or other facilities can incrementally increase the local availability (i.e. production rate) of construction materials and extend the lifespan of existing mining operations. (Recycling also extends the lifespan of local landfills.)

GOALS AND POLICIES

The goals and policies listed below are intended to achieve the following:

- Assure an adequate supply of mineral resources to support the economic activity projected to occur under the County General Plan.
- Comply with the requirements of the SMARA with regard to the conservation of mineral resources, and the permitting and reclamation of mining sites.

GOAL COS-10

Protection of Mineral Resources. The long-term production of mineral materials adequate to meet the local County average annual demand, while maintaining permitted reserves equivalent to a 50-year supply, using operational techniques and site reclamation methods consistent with SMARA standards such that adverse effects on surrounding land uses, public health, and the environment are minimized.

Policies

COS-10.1 **Siting of Development.** Encourage the conservation (i.e., protection from incompatible land uses) of areas designated as having substantial potential for mineral extraction. Discourage development that would substantially preclude the future development of mining facilities in these areas. Design development or uses to minimize the potential conflict with existing or potential future mining facilities. For purposes of this policy, incompatible land uses are defined by SMARA Section 3675.

COS-10.2 **Protection of State-Classified or Designated Lands.** Discourage development or the establishment of other incompatible land uses on or adjacent to areas classified or designated by the State of California as having important mineral resources (MRZ-2), as well as potential mineral lands identified by other government agencies. The potential for the extraction of substantial mineral resources from lands classified by the State of California as areas that contain mineral resources (MRZ-3) shall be considered by the County in making land use decisions.

COS-10.3 **Road Access.** Prohibit development from restricting road access to existing mining facilities, areas classified MRZ-2 or MRZ-3 by the State Geologist, or areas identified in the County Zoning Ordinance for potential extractive use in accordance with SMARA section 2764.a.

COS-10.4 **Compatible Land Uses.** Discourage the development of land uses that are not compatible with the retention of mining or recreational access to non-aggregate mineral deposits. *See Policy COS-10.1 for a definition of incompatible land uses.*

COS-10.5 **Reclamation Plans.** Require all mining projects to be conducted in accordance with a reclamation plan that meets the minimum reclamation standards required by the California *Surface Mining and Reclamation Act* and the associated State Mining and Geology Board regulations. Require the reclamation plan to include a phasing plan that provides for the completion of the surface mining on each segment of the mined lands so that the reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation.

COS-10.6 **Conservation of Construction Aggregate.** Encourage the continued operation of existing mining facilities and streamline the permitting of new mining facilities consistent with the goal to establish permitted aggregate resources that are sufficient to satisfy 50 years of County demand.

COS-10.7 **Recycling of Debris.** Encourage the installation and operation of construction and demolition (C&D) debris recycling facilities as an accessory use at permitted (or otherwise authorized) mining facilities to increase the supply of available mineral resources.

COS-10.8 **New Mining Facilities.** Develop specific permit types and procedures for the authorization of new mining facilities that recognize the inherent physical effects of mining operations and the public necessity for available mineral resources adequate to meet local demand, in accordance with PRC Section 2762.

COS-10.9 **Overlay Zones.** Provide zoning overlays for MRZ-2 designated lands and a 1,300-foot-wide buffer area adjacent to such lands. Within these overlay zones, the potential effects of proposed land use actions on potential future extraction of mineral resources shall be considered by the decision-makers.

Visual Resources

CONTEXT

Visual resources are diverse in nature. They are found both within the natural environment and the built, or human-made, environment. Visual resources can be valued both objectively and subjectively based on their quality, uniqueness, prominence, relationship to community identity, and economic contributions, such as to land values and tourism. Visual resources are important from an aesthetic perspective when, based on the characteristics summarized above; they are identified as containing significant scenic value.

While existing visual resources can be preserved or enhanced, the urban growth anticipated by this General Plan provides opportunities to identify or even create new visual resources, both within existing communities and in new growth areas. Goals and policies in this section emphasize the protection of scenic corridors and dark skies within the natural environment and the recognition and enhancement of community character within the built environment.

LANDSCAPE/SETTING

The landscape of the San Diego region is rich in natural open space, unique topographic resources, and scenic vistas. These natural features contribute greatly to the overall quality of the existing visual setting experienced by viewers within the County. Urban land uses are focused in the western third of the County, while the eastern two-thirds are largely undeveloped with mountains and desert dominating the landscape. The County of San Diego has three distinctive geographic regions, listed from west to east:

- Low-lying Coastal Plain
- Mountainous Peninsular Range
- Desert Salton (Imperial) Basin

The diversity of these regions provides San Diego County residents and visitors with an array of natural vistas and scenic environments that provide a unique aesthetic collection from the ocean to the desert.

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

Aesthetic value is not limited to open space and rural lands, but also can be demonstrated through architectural design, or in historic structures and districts, streetscapes, and manufactured landscapes. Within the "developed" environment, scenic features can include built uses such as structures of historic significance or architectural merit, open but developed areas such as expansive agricultural fields or groves, and the individual form and character of a unique neighborhood or community. These valuable aesthetic elements of the human-made environment can be found throughout the County. A well-known example is the historic gold-mining community of Julian.

SCENIC CORRIDORS

A highway corridor generally includes the land adjacent to and visible from the vehicular right-of-way. The dimension of the corridor is usually identified using a motorist's line of vision and may include viewshed, extending to the horizon. A "scenic highway" can pertain to any freeway, highway, road, or other vehicular right-of-way along a corridor with considerable natural or otherwise scenic landscape.

State Scenic Highways are those highways that are either officially designated by Caltrans or are eligible for designation. This statewide system of scenic highways is part of the Master Plan of State Highways Eligible for Official State Designation as Scenic Highways. A highway may be designated as "scenic" depending upon how much of the natural landscape can be seen by travelers, the aesthetic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

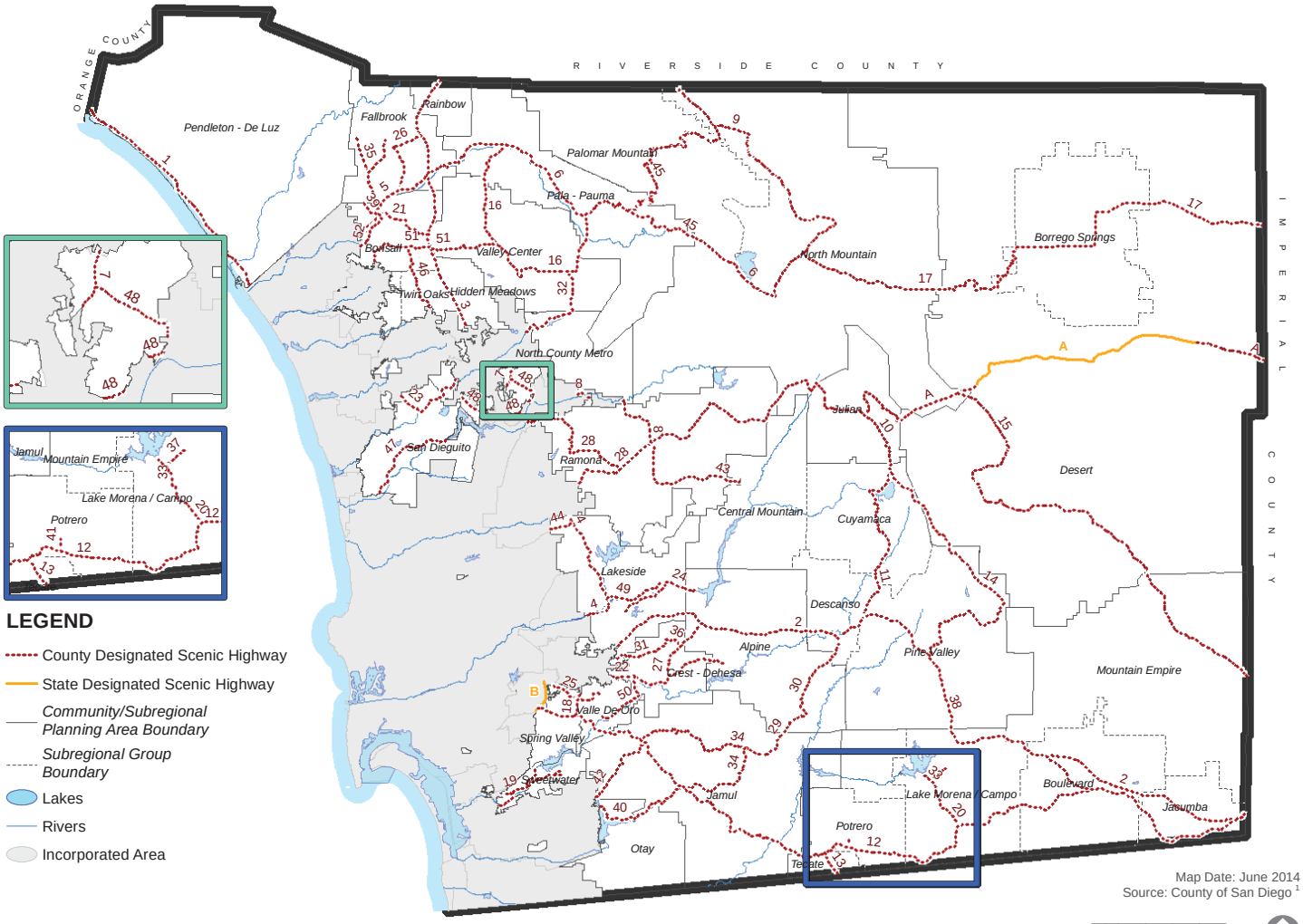
A highway's status changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as an official State Scenic Highway. Two County routes have been designated State Scenic Highways; these include (1) State Route 78 through the Anza-Borrego

Desert State Park (18.2-mile segment) and (2) State Route 125 from State Route 94 in Spring Valley to Interstate 8 in La Mesa (two miles of this segment are in the unincorporated County). In addition, Sunrise Highway (S1) is a National Scenic Byway that runs north from Old Highway 80 to State Route 79 through the Cleveland National Forest. Roads within the unincorporated County included in the Scenic Highway system are shown on Figure C-5 (Scenic Highways) and in Table COS-1 (County Scenic Highway System).

Table COS-1 County Scenic Highway System

Map Ref.	Route	Segment
A	State Route 78	Wynola Road east to Imperial County line (excluding portion in Anza-Borrego Desert State Park)
B	State Route 125	State Route 94 to Interstate 8
1	Interstate 5	Oceanside city limits north to Orange County line
2	Interstate 8	El Cajon city limits to Imperial County line
3	Interstate 15	Escondido city limits north to Riverside County line
4	State Route 67	Santee city limits to State Route 78 (excluding portion in city of Poway)
5	State Route 76	Oceanside city limits east to Interstate 15
6	State Route 76	Interstate 15 east to State Route 79
7	Bear Valley Parkway and State Route 78	Escondido city limits southeast to Via Rancho Parkway
8	State Route 78	Via Rancho Parkway to State Route 79 (excluding portion within city of San Diego)
9	State Route 79	Riverside County line to State Route 76
10	State Route 79	State Route 78 (Wynona) south to Old Highway 80
11	State Route 79	Interstate 8 north to Sunrise Highway
12	State Route 94	State Route 125 to Interstate 8
13	State Route 188 (Tecate Road)	U.S. / Mexican Border north to State Route 94
14	Sunrise Highway (S1)	State Route 79 south to Old Highway 80
15	Old Overland Stage Route (S2)	Imperial County line north to State Route 78
16	Lilac Road and Valley Center Road (S6)	State Route 76 to State Route 76
17	San Felipe Road, Montezuma Valley Road, Pal Canyon Road, Peg Leg Road, and Borrego Salton Seaway (S22)	State Route 79 east to Imperial County line
18	Avocado Boulevard	State Route 94 to El Cajon city limits
19	Bonita, San Miguel, Guajolote, and Sweetwater River Roads	Interstate 805 north to State Route 94 (excluding portion within city of Chula Vista)
20	Buckman Springs Road	Lake Morena Drive to State Route 94
21	Camino Del Rey	State Route 76 to its terminus at Old Highway 395
22	Dehesa Road	El Cajon city limits to Tavern Road
23	Elfin Forest Road / Harmony Grove Road	San Marcos city limits to Escondido city limits
24	El Monte Road	El Capitan Reservoir to Lake Jennings Park Road

Table COS-1 County Scenic Highway System		
Map Ref.	**Route**	**Segment**
25	Fuerte Drive	Interstate 8 to Chase Ave.
26	Gird, Reche, Live Oak Park, and Mission Roads	State Route 76 north and east to Interstate 15
27	Harbison Canyon Road	Arnold Way to Dehesa Road
28	Highland Valley Road	San Diego city limits to State Route 67
29	Honey Springs Road	State Route 94 north to Lyons Valley Road
30	Japatul Road	Lyons Valley Road to Interstate 8
31	La Cresta Road	Greenfield Drive to La Cresta Boulevard
32	Lake Wohlford Road	Valley Center Road east (Escondido city limits) to Valley Center Road (excluding portion within city of Escondido)
33	Lake Morena Drive	Buckman Springs Road north to Morena Lake
34	Lyons Valley Road	State Route 94 to Cleveland National Forest
35	Mission and Green Canyon Roads	State Route 76 north and east to Reche Road
36	Mountain View Road/Francis Drive	La Cresta Boulevard to Harbison Canyon Road
37	Oak Drive	Lake Morena Drive north to Buckman Springs Road
38	Old Highway 80	State Route 79 (Pine Valley) to Interstate 8 (Jacumba)
39	Olive Hill Road	State Route 76 to planning area boundary
40	Otay Lakes Road	Chula Vista city limits to State Route 94
41	Potrero Valley Road	State Route 94 to Potrero County Park
42	Proctor Valley Road	Chula Vista city limits to State Route 94
43	San Vicente and Ramona Oaks Roads	State Route 78 to Cleveland National Forest
44	Scripps Poway Parkway	Poway city limits to State Route 67
45	South Grade Road, Canfield Rd/Highway to the Stars, Palomar Divide Road, and Oak Grove Truck Trail	State Route 76 to State Route 78
46	Twin Oaks Valley Road	Gopher Canyon Road to San Marcos city limits
47	Via de la Valle, Paseo Delicias, and Del Dios Highway	San Diego city limits east to Via Rancho Parkway
48	Via Rancho Parkway (San Pasqual Road)	Del Dios Highway to State Route 78 (excluding portions in cities of Escondido and San Diego)
49	Willow and El Monte Roads	State Route 67 to southern end of El Capitan Reservoir
50	Willow Glen Drive	Jamacha Road to Dehesa Road
51	Vista Way, Gopher Canyon, and Old Castle Roads	Vista city limits north and east to Lilac Road
52	Old River Road	State Route 76 to Camino Del Rey



SCENIC HIGHWAYS

ASTRONOMICAL DARK SKIES

Astronomical research has contributed to a greater understanding of our solar system, supported advances in space travel, improved telecommunication systems, advanced weather forecasting, and provided insight to energy production. The maintenance of dark skies in San Diego County is vital to the two world-class observatories that depend on them for astronomical research. The five criteria for a high-quality site include: (1) Elevation over 5,000 feet above sea level; (2) clear, cloud-free night sky; (3) proximity to the Pacific Ocean; (4) distance from urban areas; and (5) freedom from nearby sources of light, dust, and smoke. Sites in the United States that meet these criteria are found only in west Texas, central New Mexico, Arizona, the central California coast, and the San Diego region.

The two sites in the County of San Diego, which meet all of the above criteria, include Palomar and Mount Laguna Observatories. The maintenance of dark skies in the County is vital to their operation and the astronomical research carried out at these facilities. Palomar Observatory, located 5,500 feet at the top of Palomar Mountain in northern San Diego County near Palomar Mountain State Park, is privately owned and operated by the California Institute of Technology (Caltech) and is used to support some of California's and the United States' premier scientific research programs. San Diego State University (SDSU) and the University of Illinois operate the Mount Laguna Observatory jointly. Located at an altitude of 6,100 feet on the eastern edge of the Cleveland National Forest near the Anza-Borrego State Park, 45 miles east of downtown San Diego, the Mount Laguna Observatory is one of the County's best astronomical research and education facilities.

GOALS AND POLICIES

GOAL COS-11

Preservation of Scenic Resources. Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

Policies

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

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

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

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

Potential measures for promoting scenic compatibility may include limiting or avoiding soundwalls, placing utilities underground, minimizing grading, and providing scenic vista points.

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

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

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

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

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

The concept of "undergrounding" in the initial phases of a project not only increases the aesthetic value of the surrounding viewshed, but can also reduce costs in the long run since less infrastructure is exposed to the elements.

GOAL COS-12

Preservation of Ridgelines and Hillsides. Ridgelines and steep hillsides that are preserved for their character and scenic value.

Policies

COS-12.1 **Hillside and Ridgeline Development Density.** Protect undeveloped ridgelines and steep hillsides by maintaining semi-rural or rural designations on these areas.

COS-12.2 **Development Location on Ridges.** Require development to preserve the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

GOAL COS-13

Dark Skies. Preserved dark skies that contribute to rural character and are necessary for the local observatories.

Policies

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

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

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

Air Quality, Climate Change, and Energy

CONTEXT

There is a strong correlation between land use planning, transportation system planning, and the emission of air quality pollutants, greenhouse gases (GHG) that contribute to global climate change (GCC) and criteria pollutants that degrade air quality within a region. The primary opportunities to reduce air quality pollutants and GHG emissions are in the urbanized areas of the County where there are land use patterns that can best support the increased use of transit and pedestrian activities since most GHGs and air pollutants result from mobile source emissions. The unincorporated County can also be a part of the solution by producing development patterns that contribute to reducing the dependence on the automobile and by promoting development with lower energy demands.

The development of sustainable communities contributes to both the reduction in overall air pollutants as well as solving the larger challenges associated with GCC. A holistic approach to achieving sustainable communities requires the integration of a regionwide multi-modal transportation system with a significant reduction in the reliance on single-occupant motor vehicles, along with buildings that consume less through design and efficient building materials.

AIR QUALITY

The boundaries of the San Diego Air Basin are contiguous with the political boundaries of San Diego County, including the incorporated cities, and encompass approximately 4,260 square miles. The County is divided by the Laguna Mountain Range with peaks that exceed 6,000 feet, which runs approximately parallel to the coast about 45 miles inland and separates the coastal area from the desert. To the north of the County are the Santa Ana Mountains which run along the Orange County coast, turning east to join with the Laguna Mountains near the San Diego-Orange County border.

Air pollutant emission sources in the San Diego Air Basin are typically grouped into two categories: stationary and mobile sources. Mobile source emissions can be attributed to vehicles and transportation related activities. Stationary sources can be further divided into two major subcategories: point and area sources. Point source emissions originate from manufacturing and industrial processes. Area source emissions are generated from residential heaters, small engines, and other consumer products. They are widely distributed and may have a cumulative effect.

According to readings from the ten monitoring stations operated by San Diego APCD, the County has experienced substantial improvement in ambient ozone levels. The number of days above the Federal one-

hour ozone standard has decreased from 39 days in 1990 to zero days in 2005, while the number of days above the more stringent State standard has decreased from 139 days in 1990 to 16 days in 2005. However, in 2004, the County of San Diego was designated a basic non-attainment area for the new eight-hour ozone standard.

Transportation is California's largest source of carbon dioxide, with passenger vehicles and light duty trucks creating more than 46 percent of total climate change emissions.[14] Toxic air contaminants (TAC) include pollutants known or suspected to cause cancer or other adverse health effects such as respiratory irritation or reproductive effects. The regulatory structure for TAC is different than for criteria pollutants. In San Diego County, motor vehicles and natural sources are key contributors of TAC, emitting more than 27 million pounds; while industrial, commercial, and government facilities emit more than three million pounds of TAC. Since 1989, emissions from industrial and commercial sources reduced by approximately 75 percent. Prioritizing and reducing these emissions further will require a continued, cooperative effort by the public, industry, environmental groups, the California Air Resources Board (ARB), and the California Air Pollution Control District (APCD).

CLIMATE CHANGE

The natural “greenhouse effect” allows the earth to remain warm and sustain life. GHGs trap the sun's heat in the atmosphere, like a blanket, and help determine our climate. The amount of GHGs in the atmosphere is being drastically altered by human activity. The onset of the industrial revolution and the increased consumption of fossil fuels (wood, coal, gasoline, etc.) have substantially increased atmospheric levels of GHGs. Temperatures rise as atmospheric concentrations of GHGs (such as carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons) increase. Over time, this rise in temperatures results in climate change. GHGs have been at the center of the widely contested political, economic, and scientific debate surrounding GCC.

State legislation *California Global Warming Solutions Act of 2006* requires that the State’s global warming emissions be reduced to 1990 levels by year 2020. Through more efficient land use patterns, promoting a variety of modes of transportation, and encouraging new and existing development to implement a variety of energy efficient, energy conserving and renewable technologies and practices, the County is supporting the legislation and providing the mechanism for reduced emissions throughout the region.

Human activities produce GHGs. For example, burning fossil fuels such as oil, coal, and natural gas for energy to power automobiles, homes, and factories put carbon dioxide into the air. While carbon dioxide is the GHG emitted in the largest quality, other GHGs such as methane, nitrous oxide, and fluorocarbons also contribute to the problem. In California, carbon dioxide accounts for approximately 84 percent of all the GHGs, while methane makes up approximately eight percent, and nitrous oxide and hydrofluorocarbons contribute an additional six percent and two percent, respectively.

The principal sources of carbon dioxide in the atmosphere are fossil fuel combustion and wildland fires. Agriculture is a major source of both methane and nitrous oxide, with additional methane coming primarily from landfills. Cars also emit methane and nitrous oxide. In California, more than half of fossil fuel emissions of carbon dioxide are related in some way to transportation. Fossil fuels account for 98 percent of carbon dioxide emissions, with a two percent contribution from several industrial processes that produce carbon

[14] University of San Diego, September 2008

dioxide as a by-product.[15] Buildings contribute to 40 percent of GHGs worldwide, though this is likely to be less in the County due to the rural characteristics of many areas.

Countywide, over a million tons of organic materials are disposed of in landfills annually, with approximately 200,000 tons disposed from the unincorporated County. Currently operating and closed landfills are significant sources of GHG emissions. An estimated 50 million cubic feet of methane and carbon dioxide are released daily from both closed and active County landfills, but other more potentially impactive greenhouse emissions are also released such as volatile organic carbon gases. Emissions result from the decomposition of organic materials in the anaerobic condition present in landfills.

Although methane recovery systems are placed on closed landfills, the majority of the methane generated by anaerobic decomposition occurs either prior to the recovery system's placement or is not captured by this system. Sequestering carbon through composting stabilizes the carbon in the soil materials, resulting in a very slow release of carbon dioxide and effectively prevents the formation of methane, which is 24 times more retentive of atmospheric heat than carbon dioxide. Capturing methane by anaerobic digestion of agricultural manures and burning the gas for the production of electricity on the farm is also very effective in reducing methane emissions.

ENERGY & SUSTAINABLE DEVELOPMENT

San Diego Gas & Electric (SDG&E) is a regulated public utility that provides electric service to 3.4 million customers within a 4,100-square-mile service area that encompasses 25 cities throughout San Diego and southern Orange Counties. In 2003, the three key energy agencies in California—the California Energy Commission (CEC), the California Power Authority (CPA), and the California Public Utilities Commission (CPUC)—came together to adopt an Energy Action Plan that identifies joint goals for California's energy future and sets forth a commitment to achieve these goals through specific actions. In 2008, an Energy Action Plan Status Update was released to incorporate the CEC's 2007 Integrated Energy Policy Report (IEPR), reflecting the passage of Assembly Bill 32, the California Global Warming Act of 2006. The IEPR includes advanced policies, intended to enable California to meet its energy needs in a carbon-constrained world. The report also provides a comprehensive set of recommended actions to achieve these policies. SDG&E's Long Term Resource Plan (LTRP) sets forth a strategy of mixed resources to ensure long-term, reliable, and affordable power in the region, as established by the CPUC. The CPUC regulates energy issues related to supply, delivery, rates, and tariffs for all SDG&E customers in the County.

Population is the primary driver of increasing demand for new housing. From the 1980s to the 1990s, the rate of growth of population diminished, however, electricity consumption grew by 29 percent, and natural gas consumption grew by 36 percent. In 2001, with the electricity crisis, there was a significant drop in per capita consumption of energy. SANDAG has projected that the population of the San Diego region will grow 38 percent by 2030, resulting in nearly four million people. Therefore, the demand for energy will also rise as this new population seeks ways to cool/heat and light their homes and power their cars.

[15] AB 1493 (Pavley) Briefing Package prepared by the California Environmental Protection Agency at http://www.climatechange.ca.gov/background/index.html

Energy and water are inextricably linked, especially in Southern California, where moving imported water around the State requires large amounts of energy. For example, the California State Water Project uses more energy than any single user. Therefore, reducing water use can save significant amounts of energy.

Energy efficiency, a key to meeting long-term energy needs, implies using less energy to perform the same function. Conserving energy or "doing without", and using energy more efficiently by doing the same task with less energy, are methods where the County can promote to extend the supply of energy, with minimal to no adverse impacts. Installing lighting that uses less electricity, installing additional insulation to reduce heating and cooling requirements, and switching to a vehicle with better gas mileage are energy efficiency measures. Conservation connotes "doing without" in order to save energy rather than using less energy to do the same thing. For example, turning off lights, turning down the air conditioner, and making fewer vehicle trips are all conservation measures.

Renewable sources include everything from small rooftop solar photovoltaic applications to larger renewable developments such as the Kumeyaay Wind project. While the large projects can supply energy to many thousands of homes, they generally require new transmission lines, which can result in land use and aesthetic impacts, along with an increased risk of wildfires. San Diego County depends on fossil fuels and natural gas to generate a large portion of its energy and power. These resources are non-renewable, and can be polluting. It is likely that non-renewable resources will become a more scarce and costly method of producing energy in the future. Other sources of energy can be derived from technologies such as methane recovery at landfills, roof-top solar panels and solar farms, wind turbines, bio-fuels, and rarer projects such as those that harness geothermal or tidal energy. These technologies are renewable, and can supplement existing non-renewable sources, extending the supply of non-renewable fuels and offering an alternative to polluting energy sources.

GOALS AND POLICIES

GOAL COS-14

Sustainable Land Development. Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment. [See also Goal LU-6]

Policies

COS-14.1 **Land Use Development Form.** Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.

COS-14.2 **Villages and Rural Villages.** Incorporate a mixture of uses within Villages and Rural Villages that encourage people to walk, bicycle, or use public transit to reduce air pollution and GHG emissions.

COS-14.3 **Sustainable Development.** Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.

COS-14.4 **Sustainable Technology and Projects.** Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.

COS-14.5 **Building Siting and Orientation in Subdivisions.** Require that buildings be located and oriented in new subdivisions and multi-structure non-residential projects to maximize passive solar heating during cool seasons, minimize heat gains during hot periods, enhance natural ventilation, and promote the effective use of daylight.

COS-14.6 **Solar Access for Infill Development.** Require that property setbacks and building massing of new construction located within existing developed areas maintain an envelope that maximizes solar access to the extent feasible.

COS-14.7 **Alternative Energy Sources for Development Projects.** Encourage development projects that use energy recovery, photovoltaic, and wind energy .

COS-14.8 **Minimize Air Pollution.** Minimize land use conflicts that expose people to significant amounts of air pollutants.

COS-14.9 **Significant Producers of Air Pollutants.** Require projects that generate potentially significant levels of air pollutants and/or GHGs such as quarries, landfill operations, or large land development projects to incorporate renewable energy, and the best available control technologies and practices into the project design.

The recovered methane from landfills can be pumped through turbines to generate power. This provides a mutual benefit by generating energy and reducing the amount of CO2 and methane being released from landfills. Other uses for closed facilities include photovoltaic (solar) panels, wind, and microturbines, as appropriate for the area they would be located in.

COS-14.10 **Low-Emission Construction Vehicles and Equipment.** Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.

COS-14.11 **Native Vegetation.** Require development to minimize the vegetation management of native vegetation while ensuring sufficient clearing is provided for fire control.

Plants use photosynthesis to remove carbon from the atmosphere by incorporating it into biomass and releasing oxygen into the atmosphere.

COS-14.12 **Heat Island Effect.** Require that development be located and designed to minimize the "heat island" effect as appropriate to the location and density of development, incorporating such elements as cool roofs, cool pavements, and strategically placed shade trees.

Heat islands formed as urbanized areas replace natural land cover with pavement, buildings, and other infrastructure, resulting in significantly higher average temperatures than the rural areas surrounding them.

COS-14.13 **Incentives for Sustainable and Low GHG Development.** Provide incentives such as expedited project review and entitlement processing for developers that maximize use of sustainable and low GHG land development practices in exceedance of State and local standards.

Additional goals and policies that relate to land use development are contained in the Land Use Element.

GOAL COS-15

Sustainable Architecture and Buildings. Building design and construction techniques that reduce emissions of criteria pollutants and GHGs, while protecting public health and contributing to a more sustainable environment.

Solar panels in Alpine

Policies

COS-15.1 **Design and Construction of New Buildings.** Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.

Green building programs include the Leadership in Energy and Environmental Design (LEED) standards set by the U.S. Green Building Council, the Green Point Rated system standards set by Builditgreen.org, or equivalent programs.

COS-15.2 **Upgrade of Existing Buildings.** Promote and, as appropriate, develop standards for the retrofit of existing buildings to incorporate design elements, heating and cooling, water, energy, and other elements that improve their environmental sustainability and reduce GHG.

COS-15.3 **Green Building Programs.** Require all new County facilities and the renovation and expansion of existing County buildings to meet identified "green building" programs that demonstrate energy efficiency, energy conservation, and renewable technologies.

COS-15.4 **Title 24 Energy Standards.** Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.

COS-15.5 **Energy Efficiency Audits.** Encourage energy conservation and efficiency in existing development through energy efficiency audits and adoption of energy saving measures resulting from the audits.

Energy-efficiency audits include checking, repairing, and readjusting heating, ventilation, and air conditioning, lighting, water heating equipment, insulation, and weather proofing.

COS-15.6 **Design and Construction Methods.** Require development design and construction methods to minimize impacts to air quality.

GOAL COS-16

Sustainable Mobility. Transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and other air pollutant emissions.

Policies

COS-16.1 **Alternative Transportation Modes.** Work with SANDAG and local transportation agencies to expand opportunities for transit use. Support the development of alternative transportation modes, as provided by Mobility Element policies.

COS-16.2 **Single-Occupancy Vehicles.** Support transportation management programs that reduce the use of single-occupancy vehicles.

COS-16.3 **Low-Emissions Vehicles and Equipment.** Require County operations and encourage private development to provide incentives (such as priority parking) for the use of low- and zero-emission vehicles and equipment to improve air quality and reduce GHG emissions. [Refer also to Policy M-9.3 (Preferred Parking) in the Mobility Element.]

COS-16.4 **Alternative Fuel Sources.** Explore the potential of developing alternative fuel stations at maintenance yards and other County facilities for the municipal fleet and general public.

COS-16.5 **Transit-Center Development.** Encourage compact development patterns along major transit routes.

The Mobility Element contains additional goals and policies that relate to alternate modes of travel and Transportation Demand Management.

GOAL COS-17

Sustainable Solid Waste Management. Perform solid waste management in a manner that protects natural resources from pollutants while providing sufficient, long term capacity through vigorous reduction, reuse, recycling, and composting programs.

Policies

COS-17.1 **Reduction of Solid Waste Materials.** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.

COS-17.2 **Construction and Demolition Waste.** Require recycling, reduction and reuse of construction and demolition debris.

On the line at the recycling plant

COS-17.3 **Landfill Waste Management.** Require landfills to use waste management and disposal techniques and practices to meet all applicable environmental standards.

COS-17.4 **Composting.** Encourage composting throughout the County and minimize the amount of organic materials disposed at landfills.

COS-17.5 **Methane Recapture.** Promote efficient methods for methane recapture in landfills and the use of composting facilities and anaerobic digesters and other sustainable strategies to reduce the release of GHG emissions from waste disposal or management sites and to generate additional energy such as electricity.

COS-17.6 **Recycling Containers.** Require that all new land development projects include space for recycling containers.

COS-17.7 **Material Recovery Program.** Improve the County's rate of recycling by expanding solid waste recycling programs for residential and non-residential uses.

COS-17.8 **Education.** Continue programs to educate industry and the public regarding the need and methods for waste reduction, recycling, and reuse.

GOAL COS-18

Sustainable Energy. Energy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.

Policies

COS-18.1 **Alternate Energy Systems Design.** Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting.

COS-18.2 **Energy Generation from Waste.** Encourage use of methane sequestration and other sustainable strategies to produce energy and/or reduce GHG emissions from waste disposal or management sites.

COS-18.3 **Alternate Energy Systems Impacts.** Require alternative energy system operators to properly design and maintain these systems to minimize adverse impacts to the environment.

GOAL COS-19

Sustainable Water Supply. Conservation of limited water supply supporting all uses including urban, rural, commercial, industrial, and agricultural uses.

Policies

COS-19.1 **Sustainable Development Practices.** Require land development, building design, landscaping, and operational practices that minimize water consumption.

COS-19.2 **Recycled Water in New Development.** Require the use of recycled water in development wherever feasible. Restrict the use of recycled water when it increases salt loading in reservoirs.

A permit is required from the County Department of Environmental Health for the use of recycled water.[16]

GOAL COS-20

Governance and Administration. Reduction of local GHG emissions contributing to climate change that meet or exceed requirements of the *Global Warming Solutions Act of 2006.*

[16] CPC Title 24, Part 5, California Administrative Code, Appendix G

Policies

COS-20.1 **Climate Change Action Plan.** Prepare, maintain, and implement a climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.

COS-20.2 **GHG Monitoring and Implementation.** Establish and maintain a program to monitor GHG emissions attributable to development, transportation, infrastructure, and municipal operations and periodically review the effectiveness of and revise existing programs as necessary to achieve GHG emission reduction objectives.

COS-20.3 **Regional Collaboration.** Coordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.

COS-20.4 **Public Education.** Continue to provide materials and programs that educate and provide technical assistance to the public, development professionals, schools, and other parties regarding the importance and approaches for sustainable development and reduction of GHG emissions.

Parks and Recreation

CONTEXT

This section identifies how the County of San Diego intends to meet the public need for parks and recreation opportunities. This section also identifies how the County intends to meet open space needs including building out the inter-connected preserve system (refer to Goal COS-1) and meeting General Plan goals and County strategic initiatives. The Mobility Element addresses the regional trail network, which further enhances and augments public recreational opportunities and experiences throughout the San Diego region. It should be noted that there are a wide range of park and recreation opportunities within the San Diego region provided by cities, state entities, federal entities, special districts, school districts, and private non-profit organizations in addition to those provided by the County:

- **Local Parks**—Local parks range in acreage depending on the uses and community or neighborhood they serve, and may be associated with joint use facilities such as schools. Typically, local parks contain recreation areas such as a community center, athletic fields, or facilities of special interest to the community. Smaller local parks may be located within or near town centers, where they can be used as common recreation and gathering areas by the community.

The Valle de Oro Community Park is located to the south of the City of El Cajon and to the east of the city of La Mesa.

- **Regional Parks**—Regional parks serve County residents and visitors and are often larger than 200 acres, although smaller facilities may be appropriate for specific sites of regional interest. Regional parks include a variety of passive and active recreational uses and may include an interpretive center. Most regional parks contain open space,

natural resources, cultural resources, and multi-use trails. Most regional parks also contain a local park element by serving as the recreation outlet for a community.

- **Trails**—Trails provide recreational opportunities and allow for enjoyment by the public of parks and open space preserves. Trails provide connection between recreation uses. The County Trail Program is addressed in detail in the Community Trails Master Plan.
- **Recreation Facilities**—Recreational facilities include community centers, teen centers and gymnasiums and are operated and maintained by County staff, volunteers, and service contracts.
- **Preserves**—Preserves include areas of environmental significance and beauty. The dual purpose of preserves is to protect biological, cultural, and historical resources, as well as community character, and to make these resources available for public recreation opportunities. However, typically only minimal improvements such as trails, parking, and restroom facilities are found in preserves. Some preserves may also provide interpretive or educational amenities. Preserves vary in size depending on the resources being protected, and public access can be limited according to the sensitivity of the resources *(see also Goal COS-1 and related policies in the Biological Resources section)*.


Grasslands being preserved as open space in Ramona

Open space in the County is provided by cities, the County, State entities, federal entities, special districts, private non-profit organizations, and land owners as part of the development process. The primary objective of open space within the MSCP preserve system is biological conservation. Open space may also be dedicated / preserved to meet other objectives such as preservation of cultural resources or avoidance of steep slopes. However, open space in general allows for the overall vision of this General Plan, along with the achievement of the County's strategic initiatives, to be met. Other land uses, such as passive recreational opportunities, may be appropriate within open space areas depending on the sensitivity of the resources being protected. In addition to the Park and Recreation goals and policies concerning Open Space, see also goals and policies under the Biological Resources and Cultural Resources sections in this Element.

Existing sources of funding for park acquisition and development include federal, state, and local funds, donations, and through developer exactions. The Park Lands Dedication Ordinance (PLDO) provides funding for local park active recreation. The PLDO specifies that new subdivisions are required to dedicate active park land or pay a fee in-lieu of dedication, or a combination of both, at a level of three acres per 1,000 population. State law allows for up to five acres per 1,000 population if the current active park acreage exceeds the three-acre level. These fees may also be used to provide recreational services in regional parks for local community residents. The County also participates in agreements that establish partnerships with other public and private agencies (typically with non-profit organizations) to develop, operate, and maintain recreation facilities on land typically owned by those agencies. Existing sources of funding for open space land acquisition that will ultimately build out the MSCP preserve include local, state and federal funds and donations.

GOALS AND POLICIES

GOAL COS-21

Park and Recreational Facilities. Park and recreation facilities that enhance the quality of life and meet the diverse active and passive recreational needs of County residents and visitors, protect natural resources, and foster an awareness of local history, with approximately ten acres of local parks and 15 acres of regional parks provided for every 1,000 persons in the unincorporated County.

The historic Rancho Guajome Adobe, Guajome County Park

Policies

COS-21.1 **Diversity of Users and Services.** Provide parks and recreation facilities that create opportunities for a broad range of recreational experiences to serve user interests.

COS-21.2 **Location of Parks.** Locate new local parks and recreation facilities near other community-oriented public facilities such as schools, libraries, and recreation centers where feasible, so that they may function as the "heart" of a community.

COS-21.3 **Park Design.** Design parks that reflect community character and identity, incorporate local natural and cultural landscapes and features, and consider the surrounding land uses and urban form and cultural and historic resources.

COS-21.4 **Regional Parks.** Require new regional parks to allow for a broad range of recreational activities and preserve special or unique natural or cultural features when present.

COS-21.5 **Connections to Trails and Networks.** Connect public parks to trails and pathways and other pedestrian or bicycle networks where feasible to provide linkages and connectivity between recreational uses.

GOAL COS-22

Park and Recreational Services. High-quality parks and recreation programs that promote the health and well-being of County residents while meeting the needs of a diverse and growing population.

Policies

COS-22.1 **Variety of Recreational Programs.** Provide and promote a variety of high quality active and passive recreation programs that meet the needs of and benefit County residents.

Lakeside Community Center

GOAL COS-23

Recreational Opportunities in Preserves. Acquisition, monitoring, and management of valuable natural and cultural resources where public recreational opportunities are compatible with the preservation of those resources.

Policies

COS-23.1 **Public Access.** Provide public access to natural and cultural (where allowed) resources through effective planning that conserves the County's native wildlife, enhances and restores a continuous network of connected natural habitat and protects water resources.

COS-23.2 **Regional Coordination.** Coordinate the planning, acquisition, protection, development, and management of open space among governmental agencies and private organizations to maximize opportunities to link regional open space lands.

COS-23.3 **Public Safety Involvement.** Coordinate with public safety agencies to address safety concerns when planning the acquisition and management of open space.

Agua Caliente County Park

GOAL COS-24

Park and Recreation Funding. Adequate funding for acquisition, development, maintenance, management, and operation of parks, recreation facilities, and preserves.

Policies

COS-24.1 **Park and Recreation Contributions.** Require development to provide fair-share contributions toward parks and recreation facilities and trails consistent with local, state, and federal law.

Patriot Park in 4-S Ranch

COS-24.2 **Funding Opportunities.** Maximize funding opportunities for the following:

- The acquisition, expansion, and development of parks, recreation facilities, preserves, and trails
- The operation, maintenance, and management of parks, recreation facilities, preserves, and trails

CHAPTER 6 **Housing Element**

Introduction

The State of California identifies the provision of decent and affordable housing for every Californian as a statewide goal. This Housing Element strives to meet that goal through the provision of appropriately designated land, which provides opportunities for developing a variety of housing types, and through policies and programs designed to assist the development of housing for all income levels and special needs.

This Housing Element covers the planning period of January 1, 2013 through December 31, 2020. The Element must be reviewed for compliance with State law by the State Department of Housing and Community Development (State HCD).

To meet housing demands, the General Plan accommodates 80 percent of the unincorporated County's future population in communities located within the County Water Authority (CWA) boundary, where water and other public services are more readily available. The CWA boundaries are shown on Figure H-1 (Areas Served by Sewer), which also shows areas with existing sewer infrastructure within the unincorporated County. The plan also establishes efficient and cost effective land use through compact development patterns that form distinct communities. This approach is consistent with planning trends and regional growth objectives, which are indicated in Figure H-2 (Smart Growth Opportunity Areas [SANDAG]). Within the CWA, the Land Use Plan has designated more land for multi-family units, thereby increasing the number of future residential sites as well as providing a larger variety of homes. Minimum lot size restrictions have been removed from the General Plan to allow for clustering consistent with the Zoning Ordinance (and Community Plans) and to decrease land and infrastructure costs for new development.

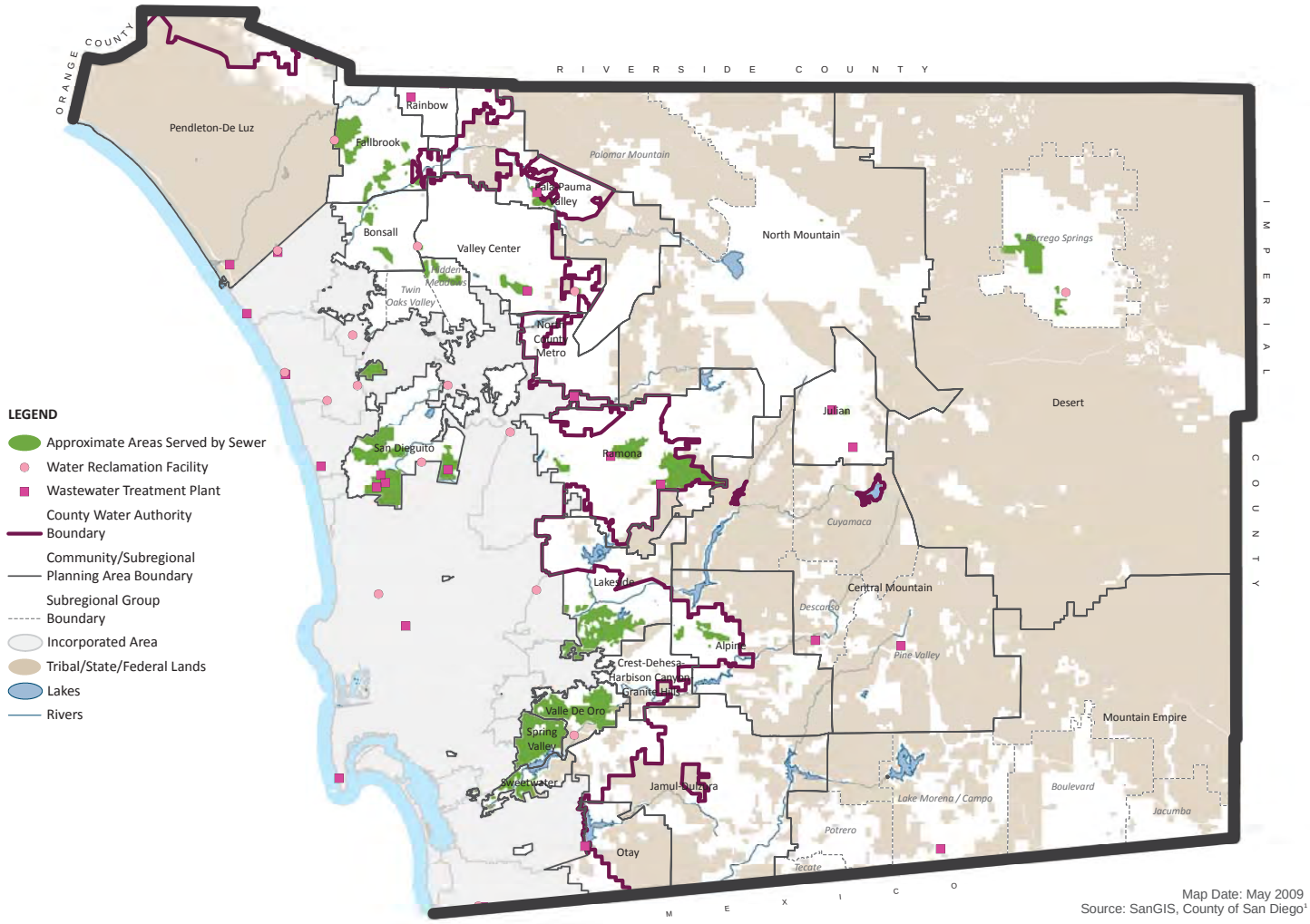
The County's Land Use Plan provides adequate housing capacity to meet this cycle's overall Regional Housing Needs Assessment (RHNA) of 22,412 residential units.[1] Refer to the Housing Element Background Report for additional information.

Purpose and Scope

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

- Provide sites with appropriate zoning and development standards and with services and facilities to accommodate the jurisdiction's RHNA for each income level.
- Assist in the development of adequate housing to meet the needs of lower and moderate income households.

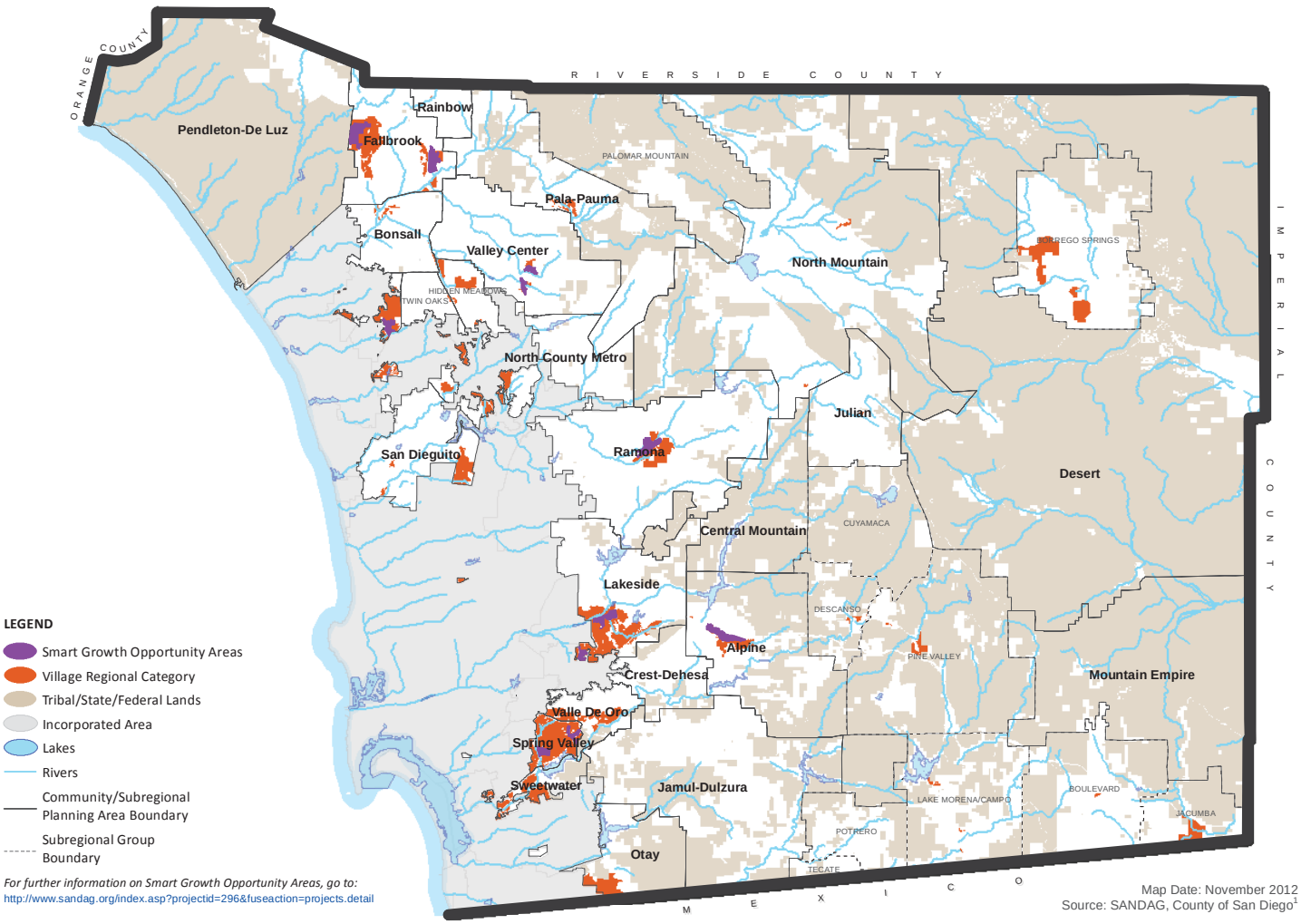
[1] The RHNA is a state-supervised process by which a regional planning agency, here the San Diego Association of Governments (SANDAG), allocates to its local jurisdictions their share of an eleven-year projected housing need at various affordability levels. That need must be accommodated by each jurisdiction's housing element.



AREAS SERVED BY SEWER

San Diego County General Plan

Figure H-1



Smart Growth Opportunity Areas (SANDAG)

San Diego County General Plan

Figure H-2

- Address, and where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for persons with disabilities.
- Conserve and improve the condition of the existing affordable housing stock.
- Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve assisted housing developments for lower income households.

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

- An analysis of population and employment trends, documentation of projections, and quantification of existing and projected housing needs for all income levels.
- An analysis and documentation of household characteristics, such as the age of housing stock, tenancy type, overcrowded conditions, and the level of payment compared to ability to pay.
- An analysis and documentation of special needs, such as female-headed households, homeless individuals, persons with disabilities, large households, farmworkers, and the elderly.
- A regional share of the total regional housing need for all income categories.
- An inventory of land suitable for residential development, including vacant land and infill/redevelopment opportunities. This analysis also looks at potential residential sites and their accessibility to adequate infrastructure and services.
- Identifying actual and potential governmental and non-governmental constraints that could potentially impede the maintenance, improvement, and development of housing for all income groups.
- Identifying and analyzing opportunities for energy conservation in residential developments.
- An inventory of at-risk affordable units that have the possibility of converting to market rate.
- A statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the improvement, maintenance, and development of housing.[2]

State law requires that adequate opportunity for participation be solicited from all economic segments of the community towards preparation of the Housing Element. Specifically, the jurisdiction must reach out to lower and moderate income persons and persons with special needs. Preparation of the Housing Element must also be coordinated with other local jurisdictions within the regional housing market area.

Guiding Principles for Housing

The foundation for Housing Element policy is based on the defined objectives of the General Plan update as well as the initiatives of the County's Strategic Plan. The objectives of improving housing affordability, assigning densities based on characteristics of the land, and locating growth near infrastructure, services, and jobs were of particular significance. Policies respond to the characteristics and challenges of both urban and rural community development.

[2] State law recognizes that the total housing need may exceed available resources and a jurisdiction's ability to satisfy identified needs. As a result, quantified objectives do not need to match the total housing need. However, a jurisdiction is required to establish the maximum number of housing units by income category that can be constructed, rehabilitated, and conserved over the Housing Element planning period.

In general, housing affordability is addressed through policies intended to increase the supply of housing and decrease housing costs. Both approaches are applicable to urbanized centers with access to infrastructure, services, and jobs, but in rural areas, the lack of infrastructure and services dictates maintaining low densities. Thus, policies affecting rural areas emphasize lowering housing costs.

Key Issues

This Housing Element seeks to balance housing requirements with infrastructure deficiencies, safety issues, and the rural character of many of the County's unincorporated communities. It also seeks to reconcile housing needs with competing land use interests. For example, agriculture is a major sector within the regional economy, and most agricultural operations are located within the unincorporated County. The County of San Diego also has the greatest number of endangered species of any county within the continental United States, and most of those species are located within unincorporated areas. Retaining agricultural and environmental resources, therefore, must be reconciled with a housing allocation that is the second largest share within the region for this Housing Element cycle.

COMPLIANCE WITH STATE REQUIREMENTS

Multifamily residential development within the unincorporated County is typically constructed at densities ranging from 10.9 to 30 dwelling units per acre. The County's development history demonstrates that residential densities exceeding 20 or 30 units per acre (depending on location) are not likely to be constructed, even when permitted, due to infrastructure limitations, environmental resource locations, and market conditions. In addition, densities above 15 or 20 dwelling units per acre are not consistent with the rural character of the County's communities.

State law assumes that land zoned for multi-family residential development presents the best opportunity for the future construction of housing affordable to lower-income households. The Land Use Element identifies a density range of 10.9 to 30 dwelling units per acre for multi-family development. However, recent changes in State law now stipulate that in the unincorporated County only zoning with a minimum density of 30 units per acres may be presumed to be dense enough to support future lower-income housing. Because the unincorporated County has very little land appropriate for development at 30 units per acre, this element has been required to demonstrate that lower-income housing can be built in the unincorporated County at densities less than 30 units per acre.

REGIONAL HOUSING NEEDS ASSESSMENT PROCESS

The issue of density was compounded with a RHNA process that allocated to the unincorporated County the third highest number of low and very low income units in the region. Unless the RHNA process as defined by State law is substantially changed, the unincorporated County will continue to rely on a wider range of residential densities—ranging from 10.9 to 30 dwelling units per acre—to meet its allocations for moderate and lower income households.

VILLAGE ISSUES

Communities located within the County Water Authority (CWA) boundary will accommodate most of the County's future population and most of its housing. Many of these communities face common issues:

- *Housing Choice:* Zoning requirements for density, lot size, building type and parking requirements have made it difficult for developers to provide a variety of housing choices for different age or economic groups.
- *Achieving Planned Densities:* Minimum lot sizes, height restrictions, and other regulations have reduced development yields to well below planned densities. For example, two-story height restrictions typically limited density to 15 or 20 units per acre.
- *Infrastructure and Services:* Providing roads, sewer, and other infrastructure to support urban or suburban development is a challenge in many communities, particularly in the County's outlying communities. Additionally, in many of the rural villages certain higher multi-family residential densities cannot be supported due to equipment limitations in many fire districts.
- *Community Acceptance:* Some community resistance to high-density housing is based on existing, poorly designed development. In addition, most unincorporated communities resist new types of higher intensity development unless it includes sufficient common open space, landscaping, and other amenities that help retain rural character.
- *Redevelopment Funds/Activities:* Redevelopment districts provide a source of funding for affordable housing, and a means for revitalizing blighted areas. Due to changes in State law, this option is no longer available. However, if a similar program does become available, the County will investigate potential implementation measures.

In the unincorporated County, environmental conditions also may limit development potential. Although the designations assigned in the land use plan were designed to reflect the carrying capacity of the land, a project level analysis was not possible due to the regional nature and scope of the plan update. Special circumstances, such as the vernal pools in the Village area of Ramona, will require creative and careful planning from future developers. The County also contains a Village area outside the CWA in Borrego Springs. Located next to Anza Borrego State Park, this desert community fosters a tourism-based economy that presents unique housing issues.

SEMI-RURAL AND RURAL LANDS ISSUES

Many of the County's lower income families live in remote, rural communities as shown on Figure H-3 (Median Household Income). However, locating future growth in these areas is not consistent with the County's multiple planning objectives.

The comprehensive General Plan update, adopted in 2011, reduced housing capacity in rural or "backcountry" communities that lack water, sewer, roads, and fire or emergency medical services. Communities where future housing capacity was reduced include Palomar/North Mountain, Desert/Borrego Springs, Julian, Central Mountain (Cuyamaca, Descanso, and Pine Valley) and Mountain Empire (Jacumba, Boulevard, Campo/Lake Morena, and Potrero). The update also designated low densities within the County's major agricultural areas, areas with significant biological sensitivity or diversity, and areas with significant physical or environmental constraints.

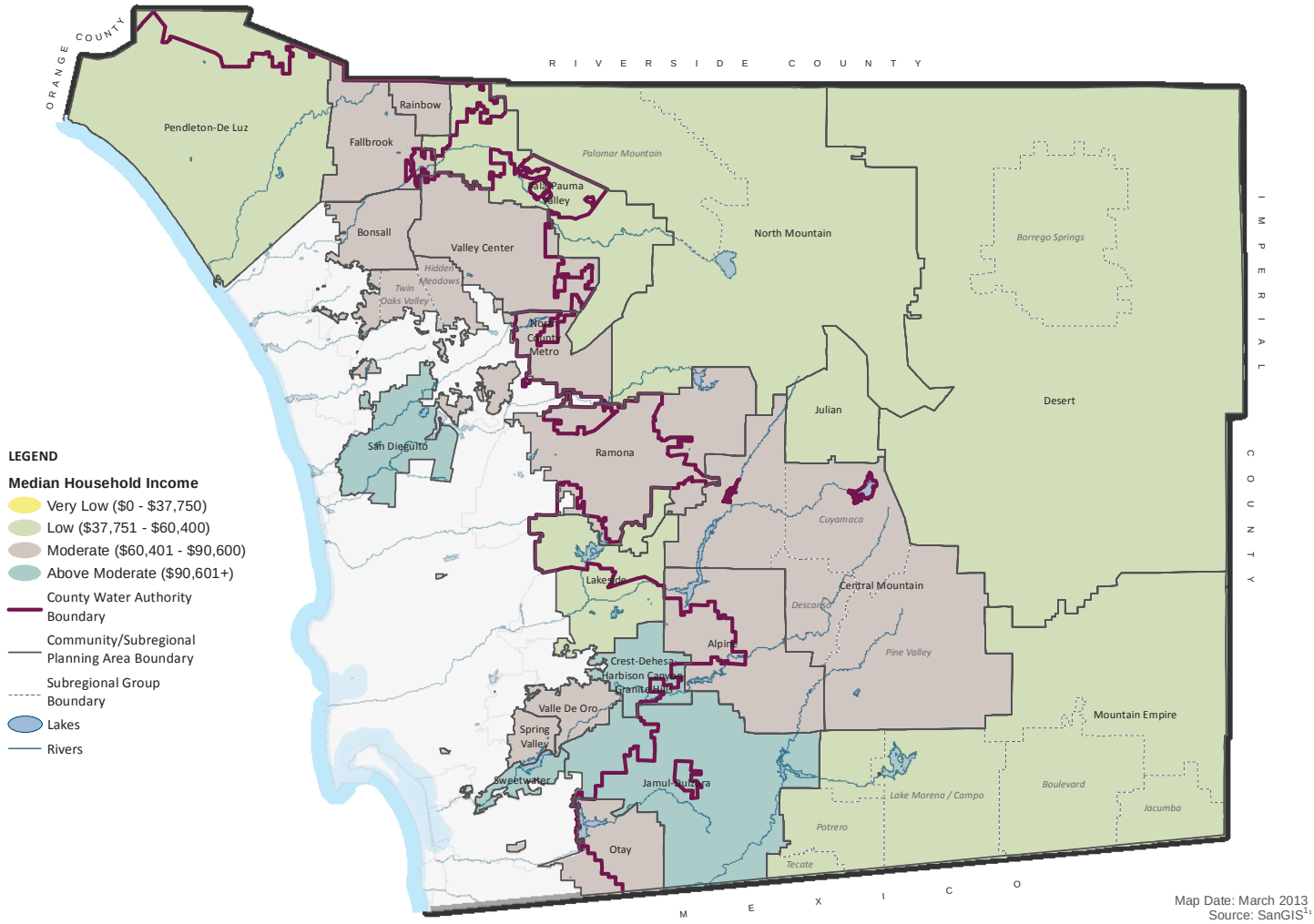
Improving housing affordability in Semi-Rural and Rural Lands is a challenge because high-density housing cannot be accommodated in these locations. In addition, residential growth should be directed away from rural and remote areas with minimal or nonexistent public services. Housing-related issues include:

- *Affordability:* Existing zoning requirements for large lot sizes increase costs for land and infrastructure in Semi-Rural areas. These same regulations limit developers' use of bonus programs.
- *Housing choice:* Affordable housing that is consistent with rural character includes mobile or manufactured homes, second units, and farmworker housing. Existing regulations should facilitate this type of development.
- *RHNA requirements for lower income households:* Although the State encourages the use of higher density zoning to meet RHNA requirements for lower income families, multi-family densities cannot be supported in rural locations.

Relationship to Other GP Elements

The goals and policies contained in the County of San Diego Housing Element are designed to be consistent with other elements of the General Plan.

When the comprehensive update to the General Plan was developed, the County evaluated the vision set forth for the General Plan and revised and augmented the existing housing goals, policies, and action programs for consistency with that vision. Policies, programs, and actions were crafted to address specific constraints and to maximize opportunities. However, the Housing Element does not determine the intensity and distribution of residential growth; such policy direction is established in the Land Use Element. The Housing Element sets forth policies and programs to further implement the residential component of the Land Use Element and that will be supported by the transportation network identified in the Mobility Element. The Housing Element also recognizes the safety constraints identified in the Safety Element, such as limitations in fire protection services, as well as the compatibility criteria of the Noise Element. Housing policies and programs also reflect a need to preserve and conserve the County's valuable open space, agricultural, and habitat resources as defined by the Conservation and Open Space Element.



MEDIAN HOUSEHOLD INCOME

San Diego County General Plan

Figure H-3

When this Housing Element is updated for the next housing cycle, the County will evaluate the policies and programs for internal consistency with the rest of the General Plan. Conversely, as other elements (particularly the Land Use Element) are amended, the County is required by State law (Government Code Section 65863) to make findings that such amendments will not impede the County from meeting its housing needs.

Policy Framework

As part of this Housing Element cycle, the County is allocated a share of the region's housing needs that is equivalent to 22,412 units. The County must, through appropriate zoning and development standards, accommodate these units through a variety of housing types and various income groups. The discussion below provides information and background regarding the County's commitment to providing its regional fair share of housing opportunities and affordable housing within the context of maintaining the rich diversity of natural environments while strengthening the community character of its diverse neighborhoods.

Housing Development

Most of the existing housing stock within the unincorporated County is composed of single-family residences. The largest portion of the jurisdiction lies outside the CWA boundary where residents rely on groundwater and septic systems. These constraints will only permit single-family homes. Consequently the development pressure for affordable homes at high densities centers on those few unincorporated communities with access to sewer and imported water.

The County's policies seek to explore several approaches that could lower the cost of housing. To meet the State's required RHNA, the supply of vacant land zoned at high densities has been increased and this limited supply must be efficiently used. Yield should be maximized through the use of flexible zoning standards and housing types. Major new developments that have access to sewer should provide housing opportunities for a range of household incomes by offering both a variety of housing types, ranging from multi-family to single-family, and a variety of lot sizes.

Variety of housing types in Lakeside include single family mobile homes on small lots

In areas without access to sewer, major new developments will continue to rely on single-family units but should utilize clustering and small lots to reduce land and infrastructure costs. Also the permitted use of mobile/manufactured homes affords lower single-family prices in these rural areas.

Community Character and Environment

The rural character of the unincorporated communities is a result of necessity as well as choice. The portions of the County that lie outside the CWA boundary lack the infrastructure to support urban densities and development. The additions of new roads and sewer capacity, which must be provided by private development, often make projects cost prohibitive. Even communities like Ramona, Fallbrook, and Alpine which lie within the CWA have retained the rural character which emerged during the early stages of growth.

In the undeveloped areas, environmental concerns and laws now take precedence over the sprawl development that occurred in the past. Within the more populated areas, higher densities of 20 to 24 units per acre have existed but the resulting development was often poorly designed and was not compatible with the surrounding areas.

The policies in this Element strive for a balance between land planned for development and land planned for the conservation of important natural resources. Land planned for development should be utilized in an efficient, effective manner. Development should complement in bulk, style, and scale the character of its surroundings while still meeting the needs of its residents.

Housing Affordability

The policies address a range of options to increase housing affordability through both financial and regulatory assistance. The availability of federal, State and local funding opportunities has been significantly reduced due to the economic recession. However, the County's Department of Housing and Community Development (County HCD) pursues those that are offered. A comprehensive agricultural assistance package is planned to include fee waivers and expedited approval for farmworker housing. Flexible building standards and expedited processing should also be explored as incentives for developers willing to provide housing for lower and moderate income households.

Preservation of Affordable Housing

The allocation of State and federal funds for the rehabilitation of housing in need of repair is handled by the County HCD. Revitalization at the local level is generally a function of redevelopment districts which are no longer available. However, the County can assist communities that are interested in comprehensive town center planning to locate and apply for funds to support the planning effort.

Governmental Constraints

As part of the General Plan update, new direction in land use policies will add flexibility to existing regulations. The flexibility will apply to projects located in Village areas where developers strive to achieve

maximum yield. For example, height limitations, private open space requirements, and noise standards may be relaxed in appropriate areas. In addition, the County is in the midst of revising regulatory permitting procedures (business process reengineering) to expedite project processing and decrease costs. As part of this streamlining effort, the process should include prioritizing discretionary decisions which affect the provision of subsidized housing or projects that provide housing reserved for lower and moderate income households.

Delivery of Housing Services

The efforts of the County HCD and Planning & Development Services should be coordinated to produce a threaded approach to the management and provision of housing-related services. These services include the procurement and distribution of funding, the tracking of housing data, implementation of Housing Element programs, public education, and outreach to affordable housing developers.

Goals and Policies for Housing Element

Housing Development

GOAL H-1

Housing Development and Variety. A housing stock comprising a variety of housing and tenancy types at a range of prices, which meets the varied needs of existing and future unincorporated County residents, who represent a full spectrum of age, income, and other demographic characteristics.

Policies

H-1.1 **Sites Inventory for Regional Housing Needs Assessment (RHNA).** Maintain an inventory of residential sites that can accommodate the RHNA.

H-1.2 **Development Intensity Relative to Permitted Density.** Encourage a development intensity of at least 80 percent of the maximum permitted gross density for sites designated at 15 to 30 dwelling units per acre in development projects.

H-1.3 **Housing near Public Services.** Maximize housing in areas served by transportation networks, within close proximity to job centers, and where public services and infrastructure are available.

H-1.4 **Special Needs Housing near Complementary Uses.** Encourage the location of housing targeted to special needs groups, in close proximity to complementary commercial and institutional uses and services.

H-1.5 **Senior and Affordable Housing near Shopping and Services.** Provide opportunities for senior housing and affordable housing development within town centers, transit nodes, and other areas that offer access to shopping and services.

H-1.6 **Land for All Housing Types Provided in Villages.** Provide opportunities for small-lot single-family, duplex, triplex, and other multi-family building types in Villages.

H-1.7 **Mix of Residential Development Types in Villages.** Support the design of large-scale residential developments (generally greater than 200 dwelling units) in Villages that include a range of housing types, lot sizes, and building sizes.

H-1.8 **Variety of Lot Sizes in Large-Scale Residential Developments.** Promote large-scale residential development in Semi-Rural that include a range of lot sizes to improve housing choice.

H-1.9 **Affordable Housing through General Plan Amendments.** Require developers to provide an affordable housing component when requesting a General Plan amendment for a large-scale residential project when this is legally permissible.

GOAL H-2

Neighborhoods That Respect Local Character. Well-designed residential neighborhoods that respect unique local character and the natural environment while expanding opportunities for affordable housing.

Policies

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

H-2.2 **Projects with Open Space Amenities in Villages.** Require new multi-family projects in Villages to be well-designed and include amenities and common open space areas that enhance overall quality of life.

Multi-family housing units in 4S Ranch

Housing Affordability

GOAL H-3

Housing Affordability for All Economic Segments. Affordable and suitable housing for all economic segments, with emphasis on the housing needs of lower income households and households with special needs.

Policies

H-3.1 **Federal Funding to Expand Affordable Housing.** Pursue funding from federal, State, and local sources to expand affordable housing opportunities within the unincorporated County.

H-3.2 **Equitable Share of Federal Funding.** Advocate for an equitable share of available federal and State housing funds for subsidizing affordable housing development within unincorporated County areas.

H-3.3 **Density Bonus as a Means to Develop Affordable Housing.** Provide a local density bonus program to encourage the development of housing affordable to lower income households and special needs households.

H-3.4 **Housing for Moderate-Income Families in Villages.** Facilitate the production of housing for moderate income families within Villages by permitting developments that offer affordable housing to incorporate other compatible housing types within areas zoned for single-family residential development.

H-3.5 **Incentives for Developments with Lower-Income Housing.** Provide zoning and other incentives to support developments that incorporate housing for lower-income households or households with special needs.

H-3.6 **Housing for Special Need Populations.** Support programs that provide housing options for homeless individuals and families, particularly homeless farmworkers and day laborers.

H-3.7 **Alternative Affordable Housing Options.** Provide programs that support the development of alternative types of affordable housing such as farmworker housing, second dwelling units, manufactured or mobile homes, shared housing, and employee or workforce housing.

H-3.8 **Housing Services Support.** Continue to provide fair housing and tenant/landlord services to residents and property owners and managers throughout the unincorporated area pursuant to federal and State Fair Housing laws.

Affordable Housing Preservation

GOAL H-4

Affordable Housing Preservation. Programs that conserve housing currently available and affordable to lower income households, and programs that prevent or reverse deterioration in areas exhibiting symptoms of physical decline.

Policies

H-4.1 **Rehabilitation and Revitalization Strategies.** Promote and support rehabilitation and revitalization strategies aimed at preserving the existing supply of affordable housing.

H-4.2 **Redevelopment of Deteriorated Housing.** Encourage and support residential redevelopment in areas characterized by deteriorated housing.

Governmental Constraints

GOAL H-5

Constraints on Housing Development. Promote governmental policies or regulations that do not unnecessarily constrain the development, improvement, or conservation of market rate or affordable housing.

Policies

H-5.1 **Periodic Review of Housing Regulations.** Periodically review and, if appropriate, revise development standards, regulations, and procedures to facilitate the development of housing, with priority given to low and moderate-income households and households with special needs.

H-5.2 **Permit Processing Time.** Reduce permit processing time and costs for projects with priority given to projects that produce housing for lower income households.

H-5.3 **Fire Protection.** Work with local fire agencies to improve fire protection for multi-story construction.

H-5.4 **Flexibility in Regulations.** Modify regulations, as appropriate, to streamline regulatory processes, remove unnecessary obstacles to planned densities, and to provide flexibility so that development can respond to the unique characteristics of town center areas.

Delivery of Housing Services

GOAL H-6

Delivery of Housing Services. An institutional framework that effectively delivers housing services and programs to implement the goals, policies, and programs of this Housing Element.

Policies

H-6.1 **Coordinated Delivery of Programs.** Coordinate delivery of housing programs and services among various County departments.

H-6.2 **Ongoing Implementation Monitoring.** Monitor progress in implementing the goals and objectives adopted in this Housing Element.

H-6.3 **Legislation That Recognizes Challenges of Unincorporated Communities.** Pursue State-level housing and land use legislation that recognizes the diversity of unincorporated communities and the associated challenges faced by County governments.

H-6.4 **Affordable Housing on Suitable County-Owned Properties.** Facilitate the development of affordable housing on suitable, County-owned surplus properties.

H-6.5 **Redevelopment Districts as a Source of Revenue for Affordable Housing.** Encourage the use of redevelopment districts to provide revenue for affordable housing construction or revitalization projects, and explore opportunities to improve the County's ability to form and manage these districts.

Pursuant to AB 26, as of February 1, 2012, all California redevelopment agencies were dissolved. Policy H-6.5 has been retained in the event that redevelopment or a similar program becomes available sometime in the future.

H-6.6 **Outreach for Affordable Housing.** Promote the production and acceptance of affordable housing through educational outreach to developers, non-profit housing groups, the public, community groups, other jurisdictions, and County staff.

CHAPTER 7 **Safety Element**

Introduction

Purpose and Scope

The purpose of the Safety Element is to include safety considerations in the planning and decision-making process by establishing policies related to future development that will minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with natural and man-made hazards. The Safety Element addresses the County of San Diego's natural hazards and human activities that may pose a threat to public safety within the following topic areas:

- Wildfires
- Geological and Seismic Hazards
- Flooding
- Hazardous Materials
- Law Enforcement
- Airport Hazards

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

Guiding Principles for Safety

The Safety Element maps, goals, and policies support the Guiding Principles specified in Chapter 2 of the General Plan. Specifically, Guiding Principle 5 provides direction for the Safety Element to ensure that development accounts for physical constraints and the natural hazards of the land. The Safety Element supports this principle through numerous policies that locate development away from hazardous areas and ensure safety and security for all communities within the County. Goals and polices of the Safety Element protect residents and areas from wildland and urban fire, crime, hazardous materials incidents, flooding, earthquakes, and hazardous incidents from aircrafts.

Relationship to Other General Plan Elements

Several Safety Element policies are interrelated with mandated topics in the Land Use, Circulation, and Conservation and Open Space Elements. For example, Land Use Maps seek to minimize future development in hazardous areas. Policies to minimize the risks posed from wildland fires, found in the fire hazards section of the Safety Element, are also found in the Land Use and Conservation and Open Space Elements. In addition, policies associated with secondary access during a fire emergency are found in the Mobility Element. References to related policies are provided where appropriate within the Safety Element. It is important to remember, however, that policies in the Safety Element are tailored to address safety-related issues and referenced policies in other Elements should also be reviewed to determine environmental or other types of policies associated with similar locations or types of development.

Goals and Policies for Safety Element

Hazards Mitigation, Disaster Preparedness, and Emergency Response

CONTEXT

This section contains goals and policies that provide for the safety and protection of life and property from the occurrence of a natural or manmade hazard and apply generally to any potential hazardous event, which may be addressed further in other topic areas in this Element.

HAZARDS MITIGATION

On October 19, 2004, the Board of Supervisors adopted the Multi-Jurisdictional Hazard Mitigation Plan (HMP) in compliance with federal and State regulations intended to reinforce the importance of mitigation planning and emphasized planning for disasters before they occur. The HMP is a comprehensive assessment of natural hazards including coastal storms, erosion and tsunami, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildland fires, and manmade hazards, including technological and terrorism. The plan enhances public awareness and understanding, creates a decision tool for management, promotes compliance with State and Federal program requirements, enhances local policies for hazard mitigation capability, and provides inter-jurisdictional coordination of mitigation-related programming.

DISASTER PREPAREDNESS

Saving lives and the protection of life, the environment, and property are the primary goals of governmental public safety agencies in any emergency or disaster. Emergency plans provide the basis from which response and recovery operations are executed. The success of these plans depends largely, in part, on the collaboration of agencies and jurisdictions responsible for the development and maintenance of these plans.

The San Diego County Office of Emergency Services (OES) coordinates the overall County response to disasters. OES is responsible for alerting and notifying appropriate agencies when disaster strikes; coordinating all agencies that respond; ensuring resources are available and mobilized in times of disaster; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for the public. OES and numerous regional partners have completed two important public safety preparedness plans related to disaster evacuations and recovery:

- The San Diego Operational Area Evacuation Plan—The Evacuation Plan is intended to be used as a template, as cities throughout the County continue to develop their individual evacuation plans. The Plan outlines procedures and organizational structures that can be used for a coordinated regional evacuation effort. Transportation routes and capacities are identified in addition to countywide shelter space and considerations for special needs populations.
- The San Diego Operational Recovery Plan—The Recovery Plan is designed to provide guidance to jurisdictions and organizations within the County of San Diego as they continue their own recovery planning. The plan addresses short and long-term restoration plans for communities impacted by disaster, including issues such as: debris removal, coordination of financial assistance

and housing, economic recovery, and measures to reduce or eliminate the effects of future incidents.

EMERGENCY RESPONSE

OES coordinates the overall County response to disasters, including alerting and notifying appropriate agencies, coordinating all responding agencies, ensuring resources are available and mobilized, developing response and recovery plans and procedures, and providing preparedness materials for the public. The Unified Disaster Council (UDC), the governing body of the Unified San Diego County Emergency Services Organization, is chaired by the Chair of the San Diego County Board of Supervisors and includes representatives from the 18 incorporated cities. OES serves as staff to the UDC and acts as a liaison between the incorporated cities, the State Office of Emergency Services and FEMA, as well as non-governmental agencies such as the American Red Cross.

GOALS AND POLICIES

GOAL S-1

Public Safety. Enhanced public safety and the protection of public and private property.

Policies

S-1.1 **Minimize Exposure to Hazards.** Minimize the population exposed to hazards by assigning land use designations and density allowances that reflect site specific constraints and hazards.

S-1.2 **Public Facilities Location.** Advise, and where appropriate require, new development to locate future public facilities, including new essential and sensitive facilities, with respect to the County's hazardous areas and State law.

S-1.3 **Risk Reduction Programs.** Support efforts and programs that reduce the risk of natural and man-made hazards and that reduce the time for responding to these hazards.

S-1.4 **Multi-Jurisdictional Hazard Mitigation Plan.** Review and update the County's Multi-Jurisdictional Hazard Mitigation Plan every five years.

S-1.5 **Post-disaster Reconstruction.** Participate in the development of programs and procedures that emphasize coordination between appropriate public agencies and private entities to remove debris and promote the rapid reconstruction of the County following a disaster event and facilitate the upgrading of the built environment as expeditiously as possible.

GOAL S-2

Emergency Response. Effective emergency response to natural or human-induced disasters that minimizes the loss of life and damage to property, while also reducing disruptions in the delivery of vital public and private services during and following a disaster.

Policies

S-2.1 **Emergency Management System Training.** Conduct annual training sessions using adopted emergency management systems. Coordinate with other jurisdictions to execute a variety of exercises to test operational and emergency plans.

S-2.2 **Participation in Mutual Aid Systems.** Maintain participation in local, regional, State, and national mutual aid systems to ensure that appropriate resources are available for response and recovery during and following a disaster.

S-2.3 **Familiarity with National and State Response Plans.** Ensure that all relevant and pertinent County of San Diego personnel are familiar with the National Incident Management System, the National Response Plan, the State of California Master Mutual Aid Agreement, and any other relevant response plans consistent with their position in the County's Emergency Management Plan.

S-2.4 **Emergency and Disaster Education Programs.** Sponsor and support education programs pertaining to emergency/disaster preparedness and response protocols and procedures. Distribute information about emergency preparedness to community groups, schools, religious institutions, transient occupancy establishments, and business associations.

S-2.5 **Existing Development within 100-year Flood Zones.** Implement flood warning systems and evacuation plans for areas that are already developed within 100-year flood zones.

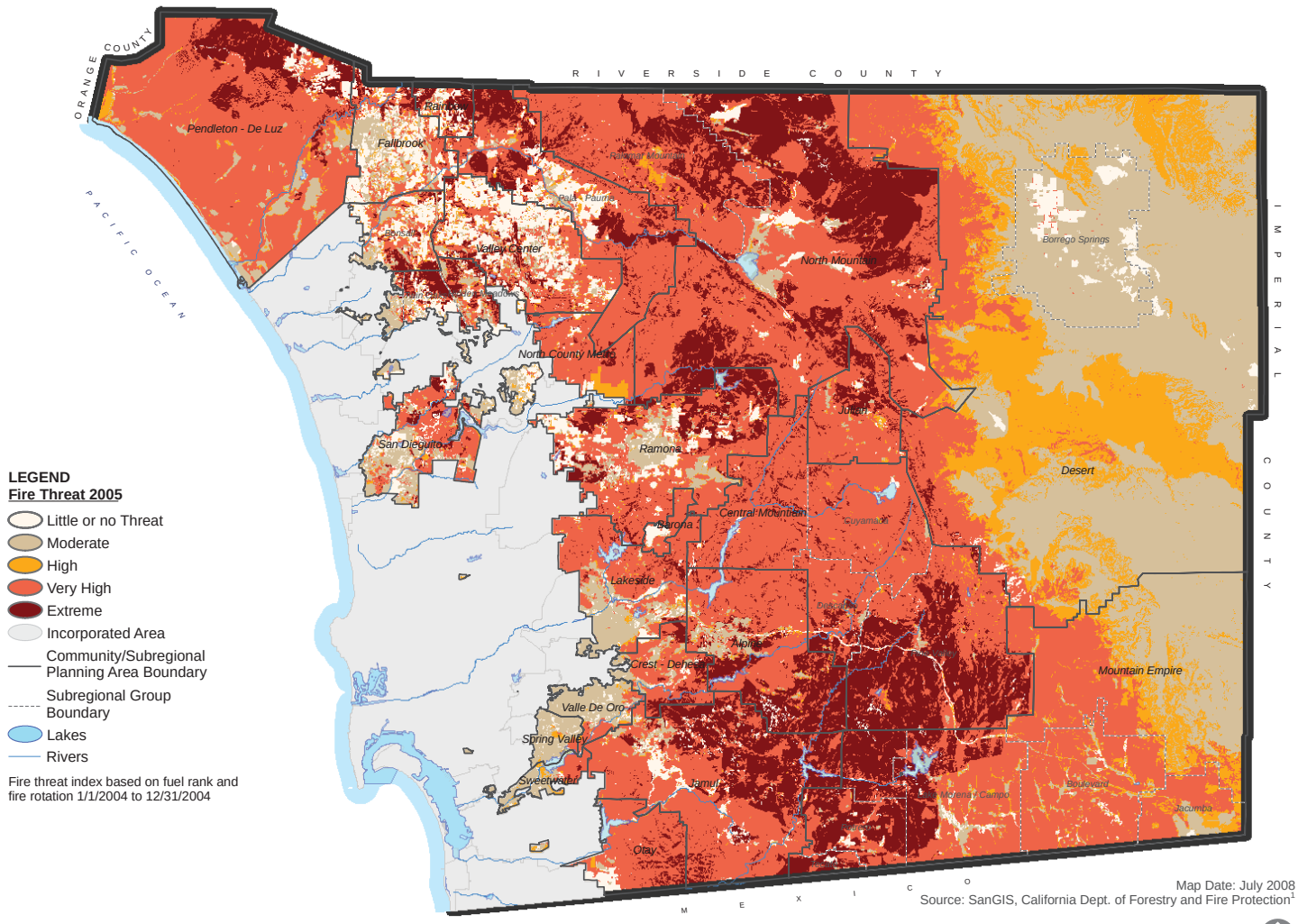
S-2.6 **Effective Emergency Evacuation Programs.** Develop, implement, and maintain an effective evacuation program for areas of risk in the event of a natural disaster.

Fire Hazards

CONTEXT

In the County of San Diego, fire hazards represent a high level threat to personal injury and property damage. Because most of the unincorporated County is located within very high or extreme fire threat areas, avoiding high threat areas is not possible (Figure S-1 [Fire Threat]). Comparing structural loss data from CAL FIRE of the 20 largest California wildland fires by structural loss between 1923-2008, San Diego County accounted for over 34 percent of the total destroyed structures statewide.

Between 1967 and 2007 San Diego County experienced more than 9,000 destroyed dwellings from wildland fires. The topography, geographic, and climatic conditions within our region lead to the overall regional fire problem. Over half of the land acreage of the unincorporated county is public land owned by the federal government, state government, or local government. Therefore, policies focus on minimizing the impact of wildfires through land use planning techniques and other mitigation measures. Key issues addressed in this section are as follows:



LEGEND
Fire Threat 2005

- Little or no Threat
- Moderate
- High
- Very High
- Extreme
- Incorporated Area
- Community/Subregional Planning Area Boundary
- Subregional Group Boundary
- Lakes
- Rivers

Fire threat index based on fuel rank and fire rotation 1/1/2004 to 12/31/2004

Map Date: July 2008
Source: SanGIS, California Dept. of Forestry and Fire Protection[1]

FIRE THREAT

San Diego County General Plan

Figure S-1

Defensible Space: Defensible space refers to a separation zone between wildlands and structures where fuel, including natural and ornamental vegetation, man-made combustible materials, and ancillary structures, is managed or modified to minimize the spread of fire to the structure and allow space for defending structures from burning vegetation. This separation is important to improving the survivability of structures in a wildland fire event and is most readily maintained when planned for as part of project design. For optimal protection against wildfires, structures should also be "hardened" to make them more ignition resistant.

- *Wildland/Urban Interface:* The wildland/urban interface refers to areas where structures and other human developments meet or intermingle with undeveloped wildland. Much of the unincorporated County is located within the wildland/urban interface.
- *Strategic Vegetation Management:* Outside of defensible space around structures, reducing, thinning, or otherwise modifying the amount of vegetation (fuel) may reduce the risk of wildfire within conifer forests as well as through strategic fuel breaks near the wildland-urban interface in low-wind conditions.

Wildland/urban interface in Bonsall

- *Access/Egress Routes:* Require development to include multiple access/egress routes when necessary to ensure adequate safety.
- *Funding Fire Services:* Existing funding for fire services is limited and variable. Full-time funding for fire services is crucial for assuring long-term commitment of adequate coverage.
- *Travel Time Standards:* The minimum travel time standards to respond to a fire hazard or medical emergency facilitate the ability to identify future fire facility needs and to determine public service requirements for proposed development. Travel time standards indicate that expectations for service levels are different in urbanized areas than in rural areas.
- *Multiple Fire Protection Districts*: Providing a coordinated response to large wildland fires is a challenge in the County where the responsibility for fire prevention and suppression is vested in a number of local, State, and federal agencies.
- *Multi-Story Structural Fires*: The ability of rural fire protection districts to safely fight structural fires with multiple stories may be an issue in rural locations when higher density multi-family residential developments are needed to provide affordable housing or alternate housing types, since the rural fire protection districts simply do not have the resources to fight multi-story structure fires.
- *Building and Site Design*: Requiring the hardening of structures with ignition resistant materials and the location of structures to minimize the risk from wildland fires.

During the past several years, the County instituted a number of safety-related programs and policies to reduce the risk of fire hazards. From 2004 to 2006, the County created the County Fire Enhancement Program to assist under-funded rural fire agencies. On June 25, 2008 the Board of Supervisors created the San Diego County Fire Authority, bringing together volunteer fire companies, fire districts, and CAL FIRE under the banner of regional coordination with local control. Policies in this section address the preceding issues and provide a framework that supports previously implemented programs and policies.

GOALS AND POLICIES

GOAL S-3

Minimized Fire Hazards. Minimize injury, loss of life, and damage to property resulting from structural or wildland fire hazards.

Policies

S-3.1 **Defensible Development.** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.

S-3.2 **Development in Hillsides and Canyons.** Require development located near ridgelines, top of slopes, saddles, or other areas where the terrain or topography affect its susceptibility to wildfires to be located and designed to account for topography and reduce the increased risk from fires.

S-3.3 **Minimize Flammable Vegetation.** Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.

S-3.4 **Service Availability.** Plan for development where fire and emergency services are available or planned.

S-3.5 **Access Roads.** Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

S-3.6 **Fire Protection Measures.** Ensure that development located within fire threat areas implement measures that reduce the risk of structural and human loss due to wildfire.

Mitigation measures include, but are not limited to, the use of ignition resistant materials, multiple ingress and egress routes, and fire protection systems.

S-3.7 **Fire Resistant Construction.** Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire threat areas.

GOAL S-4

Managed Fuel Loads. Managed fuel loads, including ornamental and combustible vegetation.

Policies

S-4.1 **Fuel Management Programs.** Support programs consistent with state law that require fuel management/modification within established defensible space boundaries and when strategic fuel modification is necessary outside of defensible space, balance fuel management needs to protect structures with the preservation of native vegetation and sensitive habitats.

North Mountain wildfire area

S-4.2 **Coordination to Minimize Fuel Management Impacts.** Consider comments from CAL FIRE, U.S. Forest Service, local fire districts, and wildlife agencies for recommendations regarding mitigation for impacts to habitat and species into fuel management projects.

S-4.3 **Forest Health.** Encourage the protection of woodlands, forests, and tree resources and limit fire threat through appropriate fuel management such as removal of dead, dying, and diseased trees.

GOAL S-5

Regional Fire Protection. Regional coordination among fire protection agencies.

Policies

S-5.1 **Regional Coordination Support.** Advocate and support regional coordination among fire protection and emergency service providers.

S-5.2 **Fire Service Provider Agreements.** Encourage agreements between fire service providers to improve fire protection and to maximize service levels in a fair, efficient, and cost effective manner.

Combined fire and Sherriff station in Pine Valley

S-5.3 **Reassessment of Fire Hazards**. Coordinate with fire protection and emergency service providers to reassess fire hazards after wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate for both short and long term fire prevention needs.

GOAL S-6

Adequate Fire and Medical Services. Adequate levels of fire and emergency medical services (EMS) in the unincorporated County.

Policies

S-6.1 **Water Supply.** Ensure that water supply systems for development are adequate to combat structural and wildland fires.

S-6.2 **Fire Protection for Multi-Story Development.** Coordinate with fire services providers to improve fire protection services for multi-story construction.

Multi-story structures are associated with densities of 15 to 30 dwelling units per acre– particularly in areas within the County Water Authority (CWA) boundary. Design features may include safe zones and increased building design features.

S-6.3 **Funding Fire Protection Services.** Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.

S-6.4 **Fire Protection Services for Development.** Require that new development demonstrate that fire services can be provided that meets the minimum travel times identified in Table S-1 (Travel Time Standards from Closest Fire Station).

Travel times are calculated using accepted methodology based on the travel distance from the fire station to the farthest dwelling unit of the development. Fire stations must be staffed year-round, publicly supported, and committed to providing service. These do not include stations that are not obligated by law to automatically respond to an incident. Travel time is based on standards published by the National Fire Protection Association. Travel time does not represent total response time, which is calculated by adding the travel time to the call processing time and to the turnout/reflex time. Generally, the call processing and turnout/reflex time would add between two to three minutes to the travel time. It is not known if any county has formally adopted NFPA 1710 and/or 1720 as a standard. Total Response Time (NFPA 1710/1720) is calculated as time the Public Safety Answering Point (PSAP) receives the emergency call, transfers it to fire communications, the alarm is processed and transmitted to responders, responders "turnout", plus travel time to the scene to initiate action. The use of response time for determining adequate service is problematic in the unincorporated County because it is subjective and varies from department to department, station to station and work shift to work shift. Reflex time (the amount of time from when the call is received by the station to when the engine leaves the station) can vary from one to three minutes. The use of travel time, as calculated by using NFPA 1142, allows us to be consistent across the County in determining adequate response, regardless of the district.
Table S-1 establishes a service level standard for fire and first responder emergency medical services that is appropriate to the area where a development is located. Standards are intended to (1) help ensure development occurs in areas with adequate fire protection and/or (2) help improve fire service in areas with inadequate coverage by requiring mitigation for service-level improvements as part of project approval.

Table S-1 Travel Time Standards from the Closest Fire Station*

Travel Time	Regional Category (and/or Land Use Designation)	Rationale for Travel Time Standards**
5 min	■ Village (VR-2 to VR-30) and limited Semi-Rural Residential Areas (SR-0.5 and SR-1) ■ Commercial and Industrial Designations in the Village Regional Category ■ Development located within a Village Boundary	In general, this travel time standard applies to the County's more intensely developed areas, where resident and business expectations for service are the highest.
10 min	■ Semi-Rural Residential Areas (> SR-1 and SR-2 and SR-4) ■ Commercial and Industrial Designations in the Semi-Rural Regional Category ■ Development located within a Rural Village Boundary	In general, this travel time provides a moderate level of service in areas where lower-density development, longer access routes and longer distances make it difficult to achieve shorter travel times.
20 min	■ Limited Semi-Rural Residential areas (>SR-4, SR-10) and Rural Lands (RL-20) ■ *All* Commercial and Industrial Designations in the Rural Lands Regional Category	In general, this travel time is appropriate for very low-density residential areas, where full-time fire service is limited and where long access routes make it impossible to achieve shorter travel times.

Table S-1 Travel Time Standards from the Closest Fire Station*		
Travel Time	**Regional Category (and/or Land Use Designation)**	**Rationale for Travel Time Standards****
>20 min	■ Very-low rural land densities (RL-40 and RL-80)	Application of very-low rural densities mitigates the risk associated with wildfires by drastically reducing the number of people potentially exposed to this hazard. Future subdivisions at these densities are not required to meet a travel time standard. However, independent fire districts should impose additional mitigation requirements on development in these areas.

* The most restrictive standard will apply when the density, regional category and/or village/rural village boundary do not yield a consistent response time standard.

** Travel time standards do not guarantee a specific level of service or response time from fire and emergency services. Level of service is determined by the funding and resources available to the responding entity.

S-6.5 **Concurrency of Fire Protection Services.** Ensure that fire protection staffing, facilities and equipment required to serve development are operating prior to, or in conjunction with, the development. Allow incremental growth to occur until a new facility can be supported by development.

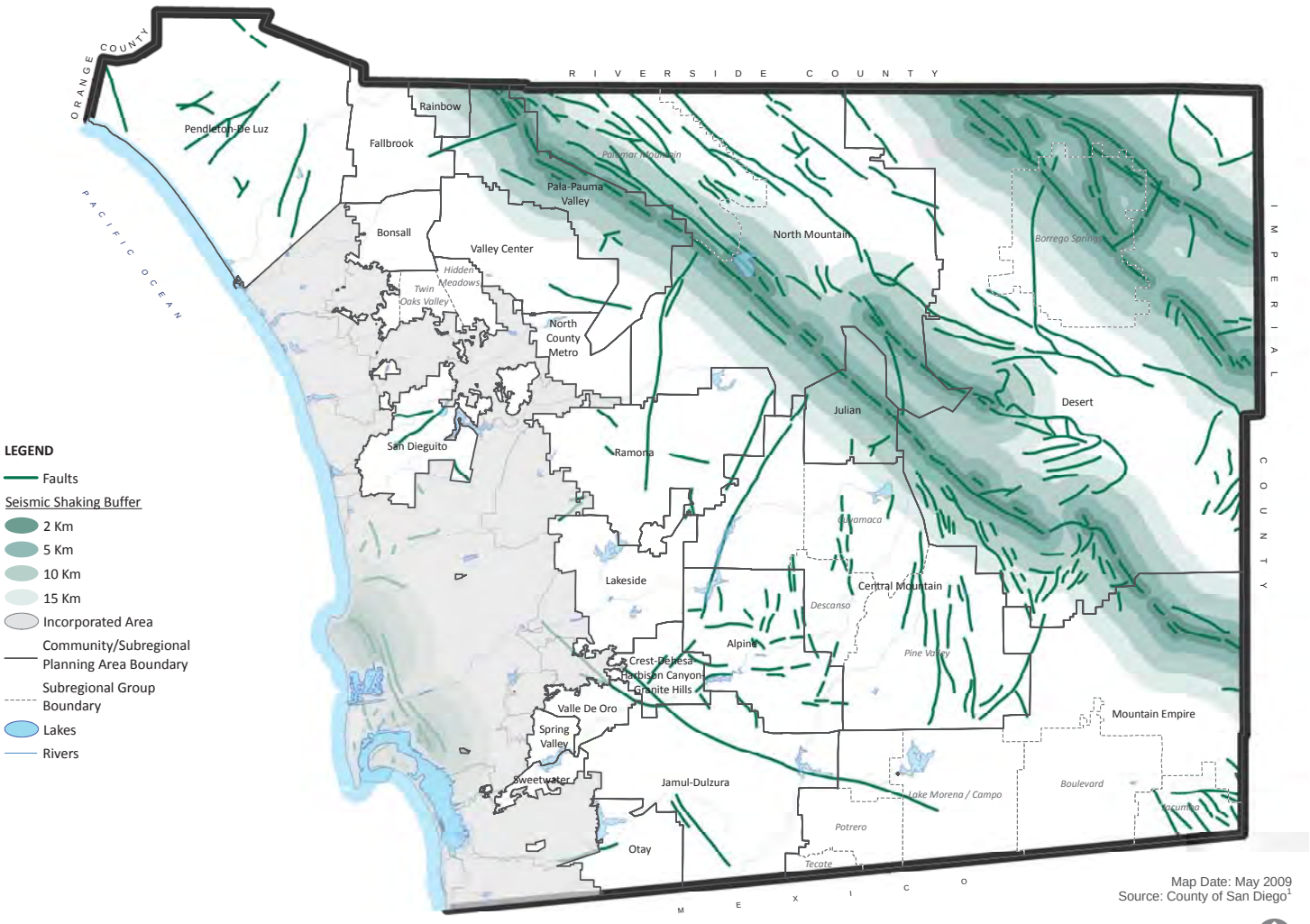
Geological Hazards

CONTEXT

Natural geologic processes that represent a hazard to life, health, or property are considered geologic hazards. Natural geologic hazards affecting people and property in County of San Diego include earthquakes, which can cause surface fault rupture, ground shaking, landslides, and liquefaction; expansive soils; weathering; and mass wasting phenomena, such as landslides and rockfalls (See Figure S-2 [Faults and Near Source Shaking Zones], Figure S-3 [Landslide Susceptibility], and Figure S-4 [Expansive Clays]). Although it is not possible to prevent or mitigate all geologic hazards, their destructive effects can be reduced to acceptable levels or avoided through careful planning and project siting and design.

Of the geological hazards, seismic hazards pose the highest potential for causing widespread damage. All of San Diego County is located within Seismic Zone 4 (Sec. 1629.4.1 of the *California Building Code* [CBC]), which is the highest Seismic Zone and, like most of Southern California, is subject to ground shaking. Active faults in the region include segments of the San Jacinto, Elsinore, and Rose Canyon fault zones. Seismic hazard policies listed below reflect State law and adopted guidelines including the CBC, *Alquist-Priolo Earthquake Fault Zoning Act*, and the State's Guidelines for Evaluating and Mitigating Seismic Hazards in California (Special Publication 117).

Landslide risks vary across the County's diverse landscape. Landslides consist of masses of rock, earth, or debris that move down a slope. Types of slope failures include rock falls, rotational (deep) slips, and shallow debris flows. Landslides can be caused by human activities such as grading, irrigation of slopes, and mining activity. Landslides also occur as a result of natural conditions such as earthquakes, heavy precipitation, weak rock/soil character, seepage of groundwater, and topography. Areas within the County subject to the greatest risk of landslides include properties on or below steep slopes. In order to reduce landslide hazards to public health and safety, land use policies are incorporated into this Element that serve to avoid



FAULTS & NEAR SOURCE SHAKING ZONES

San Diego County General Plan

Figure S-2