

**Attachment F – Local Coastal Program Land Use
Plan (with policy modifications - Clean)**

County of San Diego

Planning and Development Services

Local Coastal Program

LOCAL COASTAL PROGRAM

LAND USE PLAN

August 2018

County of San Diego

Planning and Development Services

5510 Overland Avenue, Suite 310

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1 Introduction

The County of San Diego Local Coastal Program (LCP) is made up of the following documents:

- the “Land Use Plan” (LUP) document includes policies and programs, as well as background and introductory text for each policy section; and
- the “Implementation Plan” (IP) document (text and maps) is a means of implementing the policies and programs of the LUP.

1.1 The Local Coastal Program

The LCP is the primary document that governs land development in the County of San Diego’s Coastal Zone (hereafter “County’s Coastal Zone”), as described further in Section 1.2. The LCP is designed to preserve the unique environment of the County’s Coastal Zone and to encourage the protection and restoration of its resources, while encouraging public enjoyment of its recreational opportunities. The LCP guides both public and private activities that constitute “development” under the California Coastal Act of 1976 (hereafter “Coastal Act”). In general, constructing a dwelling, commercial building, road, trail, or other improvements constitutes “development” that requires a permit, with specific exceptions. Furthermore, “development” includes changes in the use of land or water, even where construction is not involved. The term “development” is defined in Public Resources Code (PRC) Section 30106 as follows:

“Development” means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg Nejedly Forest Practice Act of 1973 (commencing with Section 4511 of the Public Resources Code).

As used in this section, “structure” includes any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. Any activity meeting the definition of development within the Coastal Zone requires a Coastal Development Permit, unless the development is categorically excluded, exempt, or qualifies for a de minimis waiver, consistent with the Coastal Act.

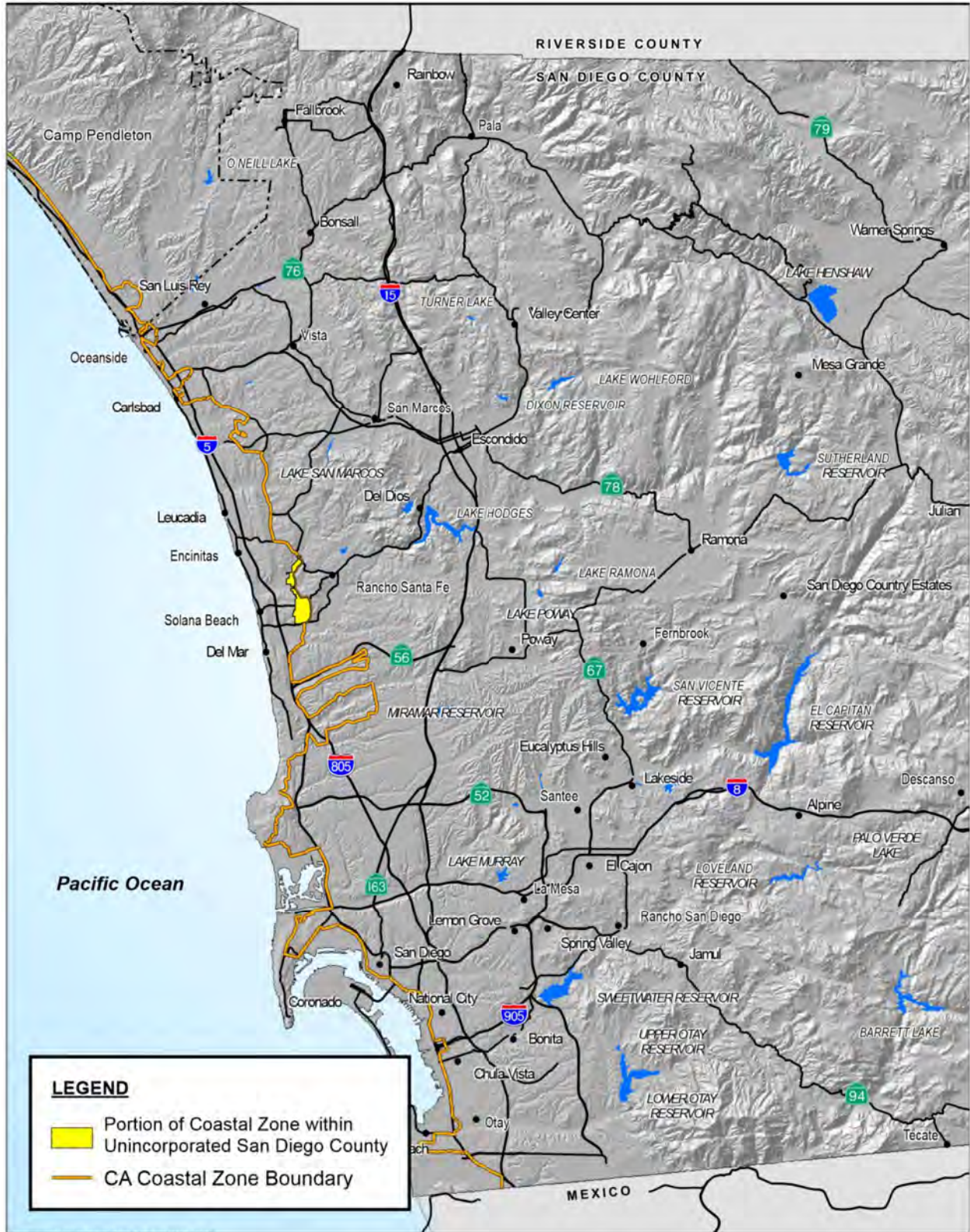
1.1.1 The County's Coastal Zone

The County's Coastal Zone is a narrow strip of land defined by the Coastal Act. It is composed of the portion of California's Coastal Zone that is located within unincorporated San Diego County. The County's Coastal Zone is located east of Interstate 5 (I-5), north of the city of San Diego, and east of the cities of Encinitas and Solana Beach, within the unincorporated community of San Dieguito (Figure 1, Regional Location, and Figure 2, Local Context). The County's Coastal Zone is approximately 2 miles inland from the coast, encompasses approximately 1,050 acres (1.64 square miles), and does not contain any coastline.

Topography within the Coastal Zone ranges from 10 to 320 feet above sea level, with variable hills that provide limited views of the San Elijo Lagoon Ecological Reserve and surrounding neighborhoods. San Elijo Lagoon is adjacent to the northwest boundary of the County's Coastal Zone. Escondido Creek runs through the northwest area of the County's Coastal Zone and serves as a freshwater connector between San Elijo Lagoon and the Carlsbad Watershed.

A majority of the County's Coastal Zone is built out and primarily consists of rural to semi-rural estate residential development, with pockets of coastal access and recreation, and connectivity to the shoreline provided through recreational areas, and trails and pathways, as shown on Figure 3, Existing Land Uses. The County's Coastal Zone contains the western portion of the Rancho Santa Fe Covenant¹ (approximately 285 acres), as well as the Sun Valley and Vicinity subarea in the southern portion of the Coastal Zone. San Dieguito Regional Park (San Dieguito Park) constitutes the largest block of open space park for recreational use, while the northern portion of the County's Coastal Zone contains an open space preserve adjacent to San Elijo Lagoon. The County's Coastal Zone also contains small-scale agricultural and commercial uses.

¹ The Rancho Santa Fe Protective Covenant, established in 1928, is an agreement among property owners to preserve the character of the community and uphold the quality of future architecture.



Source: Esri; SanGIS 2016; SANDAG

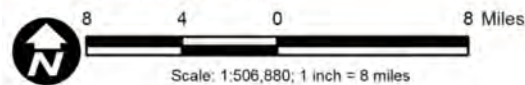
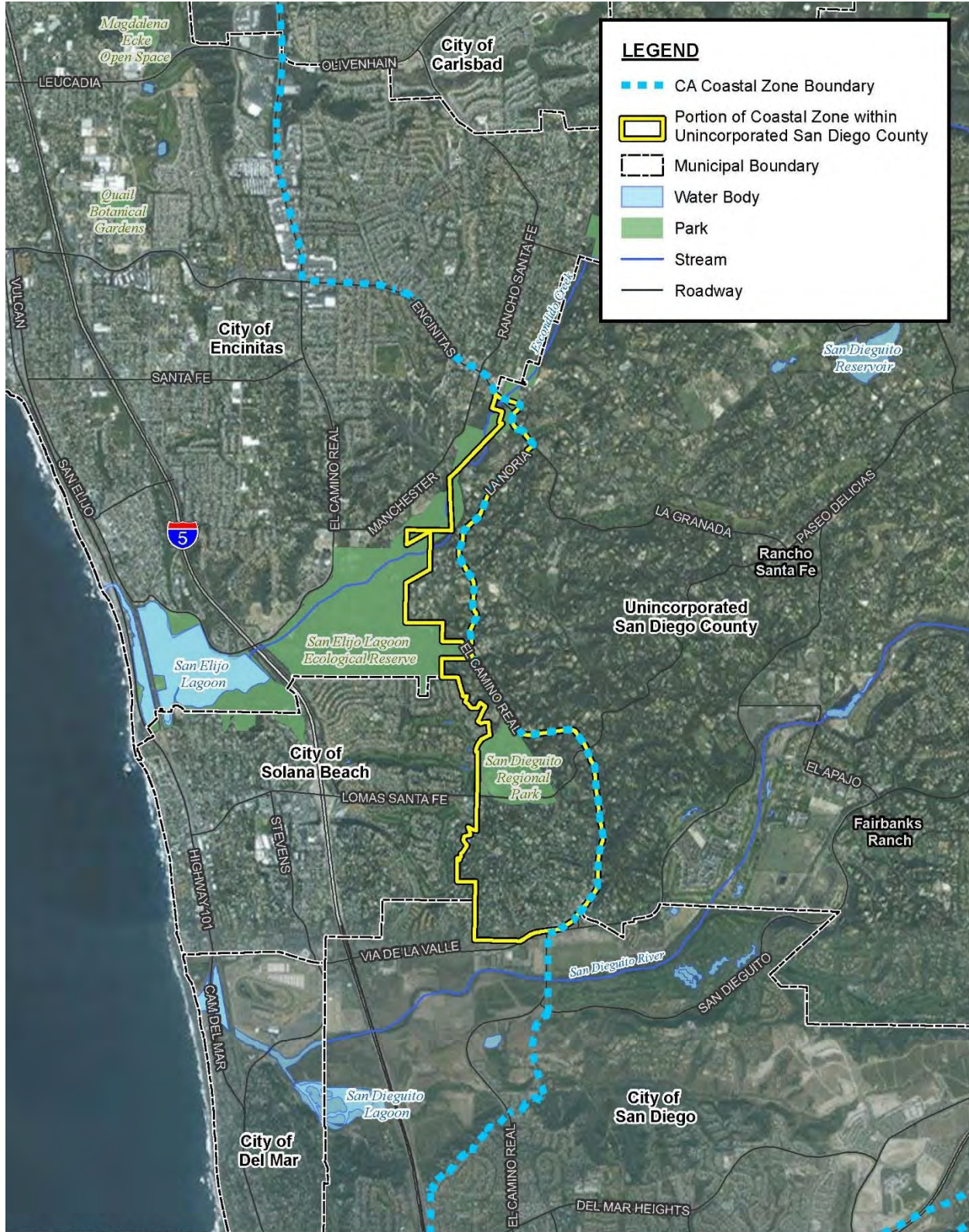


Figure 1
Regional Location



Source: SanGIS 2016; NAIP 2014.

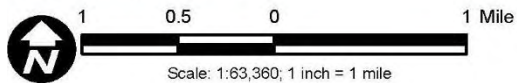
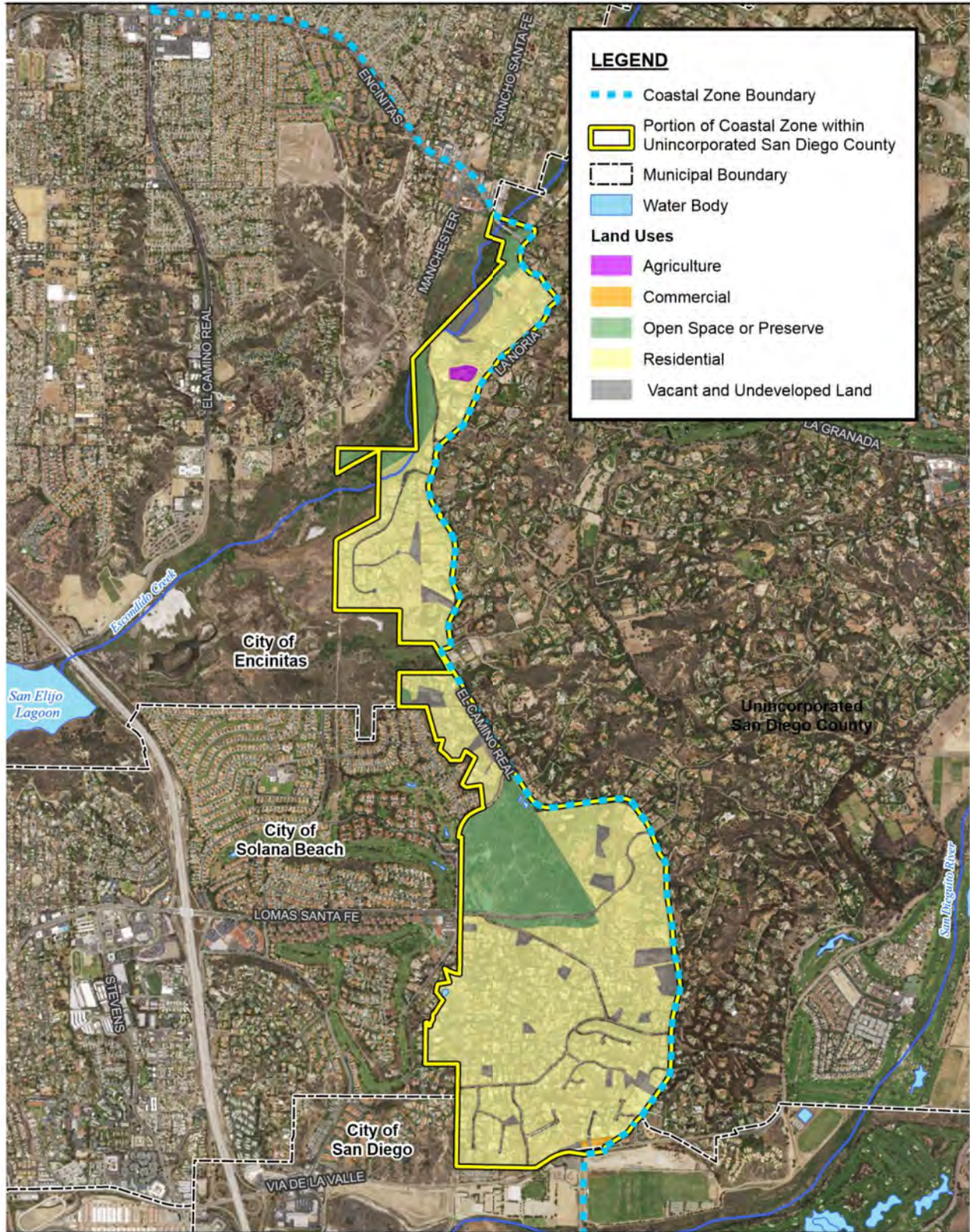


Figure 2
Local Context



Source: SanGIS 2016; NAIP 2014.

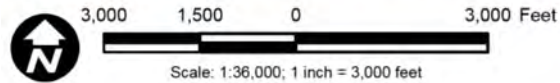


Figure 3
Existing Land Uses

Local Coastal Program - Land Use Plan

County of San Diego Local Coastal Program - Land Use Plan

1.1.2 Purpose

The purpose of the LCP is to carry out the coastal resource protection policies of the Coastal Act. Coastal cities and counties are subject to both state planning and zoning laws and the Coastal Act. Each coastal city and county in California is required by that law to prepare and implement an LCP for its portion of the Coastal Zone that becomes part of, and should be integrated with, a local jurisdiction’s general plan. Like other counties in California, the San Diego County’s General Plan (hereafter “General Plan”) contains a comprehensive land use plan for its entire jurisdiction area, which extends landward well beyond the Coastal Zone boundary (Land Use Element of the General Plan, as required by the California Government Code, Sections 65300-65303.4). Figure 4 and Figure 5, Land Use Designations and Use Regulations, show the applicable General Plan land uses and zoning for the County’s Coastal Zone.

In August 2011, the San Diego County Board of Supervisors approved the General Plan. The 2011 General Plan is the result of the collective efforts of elected and appointed officials, community groups, individuals, and agencies who developed a framework for the future growth and development of the unincorporated areas of the County. Community Plans, adopted as an integral part of the County’s General Plan, are policy plans specifically created to address the issues, characteristics, and visions of communities within the County. The County’s Coastal Zone is located within the San Dieguito planning area, and the San Dieguito Community Plan was adopted in 2011 concurrent with the General Plan. Because the General Plan and the San Dieguito Community Plan contain strong policy frameworks for the County’s Coastal Zone, the County has prioritized inclusion and/or adaptation of existing policies in this LCP, rather than creation of new policies.

The General Plan, and associated community plans, guide land development throughout the County. However, in the Coastal Zone, the LCP takes precedence over these plans. Where the LCP contains specific provisions applicable to development, such LCP provisions govern development activities. Policies of the General Plan that are not addressed by the Coastal Act and the LCP (e.g., policies that address housing and noise) apply throughout the entire County, both within and outside the Coastal Zone. Compliance with the LCP does not preclude development projects from the requirement to meet applicable Federal, State, and local regulations. If a conflict arises, development must comply with the more restrictive policy or regulation.

The uncertified status of the County’s 2011 LCP leaves property owners within the County’s Coastal Zone to seek Coastal Development Permits through the California Coastal Commission (CCC) in addition to the County permit requirements and processes. As such, the County has undertaken an LCP update with the ultimate goal of receiving CCC certification and assuming responsibility for issuing Coastal Development Permits² within the County’s Coastal Zone (San Diego County 2015). This LUP document updates and replaces the 2011 LUP of the County’s LCP.

² See Section 1.2.1 for more details on the County’s Coastal Permit process.

1.2 The California Coastal Act

In 1972, the United States Congress passed Title 16 United States Code [U.S.C.] 1451-1464, which established a federal coastal zone and management policy. Pursuant to that legislation, the Congress declared a national interest in the effective management, beneficial use, protection, and development of the coastal zone in order to balance the nation’s natural, environmental, and aesthetic resource needs with commercial economic growth.

The Congress found and declared that it was national policy “to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and aesthetic values as well as to the need for economic development” (16 U.S.C. 1452b). As a result of federal enactment, coastal states were provided a policy and source of funding for the implementation of federal goals.

The Coastal Act is the permanent enacting law approved by the state legislature as a result of federal legislation from 1972 (Title 16 U.S.C. 1451-1464). The Coastal Act provides for the transfer of permitting authority, with certain limitations reserved for the state, to local governments through adoption and certification of an LCP by the CCC.

The LCP is a comprehensive long-term planning blueprint prepared by the County as required by the Coastal Act. The Coastal Act is intended to ensure that coastal areas of California are developed in a manner that is responsive to public objectives. The Coastal Act establishes these public objectives as policies, which are incorporated into this LUP.

Section 30108.6 of the Coastal Act defines an LCP as containing the following components from a local government that, when taken together, meet the requirements of and implement the provisions of the Coastal Act at the local level:

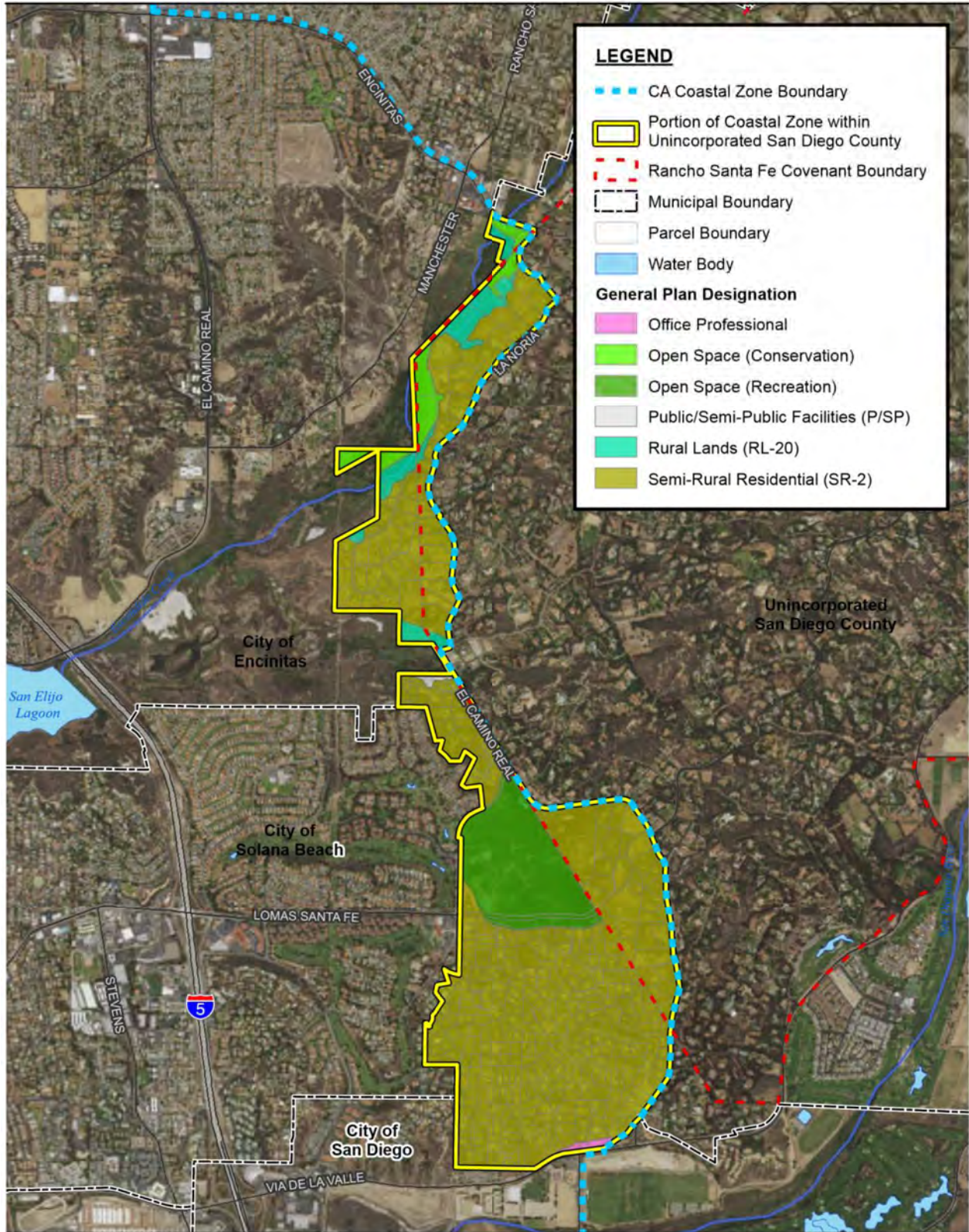
- land use plans;
- zoning ordinances;
- zoning district maps; and
- within sensitive coastal resources areas, other implementing actions.

The review authority for new development within the unincorporated area of the County’s Coastal Zone will transfer from the CCC to the County, with some exceptions in certain geographic areas, upon certification of the LCP (including the LUP and the IP). However, according to Section 30519 of the Coastal Act, the CCC will continue to retain original permit jurisdiction on submerged lands and public trust lands. In authorizing Coastal Development Permits following LCP certification, the County must make the finding that the development conforms to the certified LCP. Any amendments to the certified LCP will require review and approval by the CCC prior to becoming effective. Although an LCP is part of a coastal city or county’s general plan, amendments to a local general plan for the purpose of developing a certified LCP do constitute an amendment to a general plan for purposes of Section 65358 of the Government Code.

In addition, certain types of development and development within certain geographic areas approved by the County after certification of the LCP are appealable to the CCC (PRC Section 30603) and include:

- developments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance;
- developments approved by the local government not included in paragraph (1) that are located on tidelands, submerged lands, and public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff;
- developments approved by the local government not included with paragraph (1) or (2) that are located in a sensitive coastal resource area;
- any development approved by a coastal county that is not designated as the principal permitted use under the zoning ordinance or zoning district map approved pursuant to Chapter 6 (commencing with Section 30500) and
- any development which constitutes a major public works project or a major energy facility.

The grounds for an appeal of an approval of a permit are limited to an allegation that the development does not conform to the standards set forth in the certified LCP or the public access policies of the Coastal Act, as stated in Section 30603 (b). Likewise, grounds for an appeal of a denial of a permit for developments noted in Section 30603 (a) paragraph 5 are limited to an allegation that the development does not conform to the standards set forth in the certified LCP and the public access policies of the Coastal Act.



Source: SanGIS 2016; NAIP 2014.

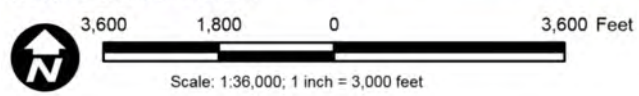
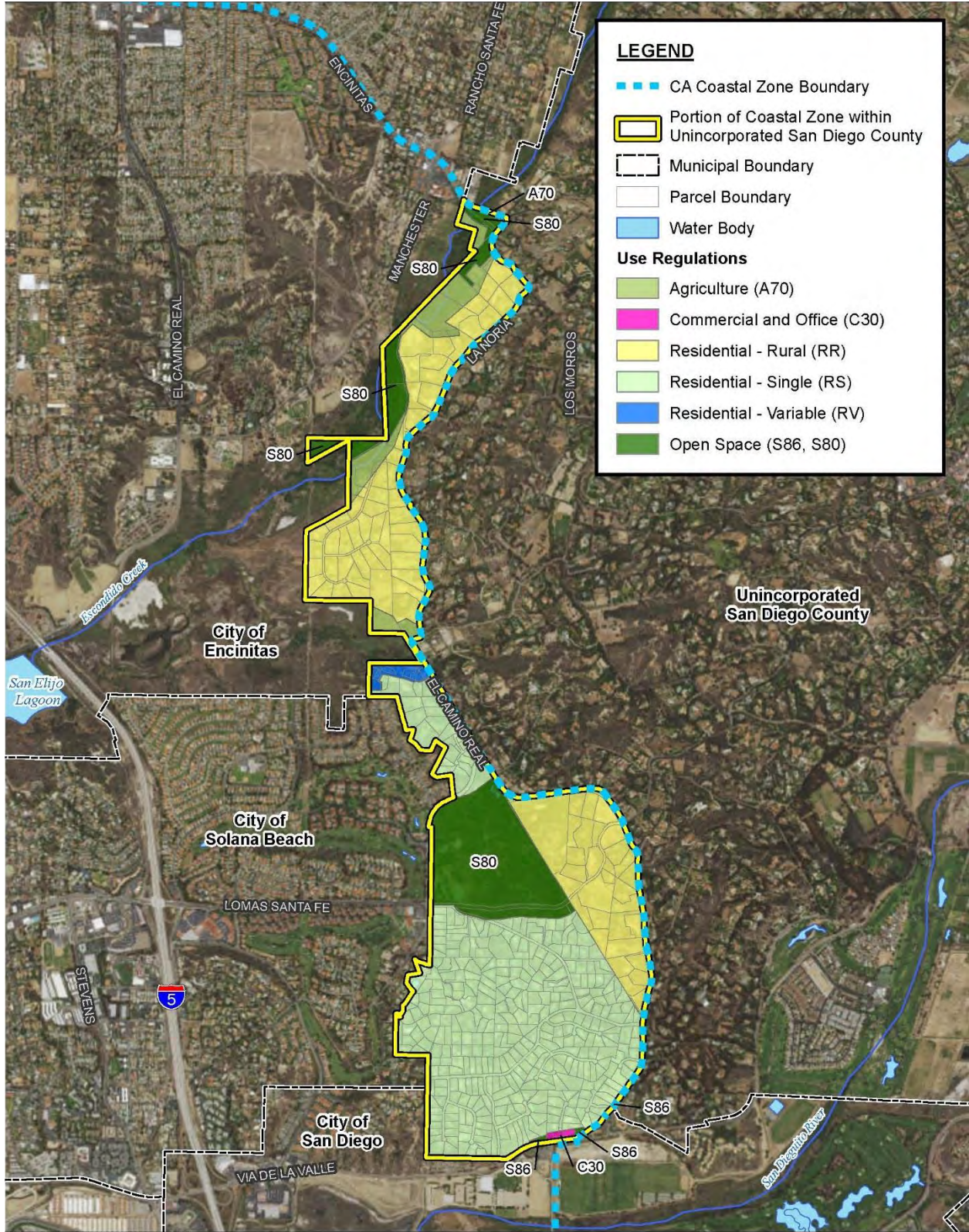


Figure 4
Land Use Designations



Source: SanGIS 2016; NAIP 2014.

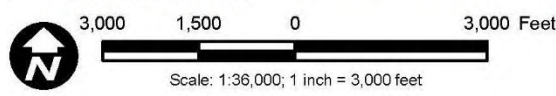


Figure 5
Use Regulations

1.2.1 Coastal Development Permit

The primary tool for implementing the LCP is the Coastal Development Permit. Currently, the CCC issues Coastal Development Permits for projects occurring within the Coastal Zone. Upon certification of the LCP by the CCC and adoption by the County, the County will review project plans and issue Coastal Development Permits with the exception of projects occurring within CCC-retained jurisdiction. Coastal Development Permits include Coastal Administrative Permits and Coastal Development Permits and are described below.

County of San Diego Planning & Development Services (PDS) is responsible for implementing the LCP and for reviewing Coastal Development Permit applications. PDS assists property owners and developers to determine whether their proposed project requires a Coastal Development Permit, whether the Coastal Development Permit should be obtained from the County or the CCC, and whether other types of permits from the County may also be required. PDS will ensure that projects meet the intent of the Coastal Act and are able to make the required findings.

County Coastal Development Permit Process

For this LCP, “Coastal Development Permit” includes Coastal Administrative Permits (CAP) and Coastal Development Permits (CDPs) issued by the County. Both CAPs and CDPs are referred to as “Coastal Development Permits” hereafter in this document, with the exception of sections of the Coastal Act, or Coastal Act policies, which are included here verbatim. Persons wishing to undertake any development in the Coastal Zone shall apply for a Coastal Development Permit, either through a CAP or a CDP.

Coastal Administrative Permit: A type of Coastal Development Permit that: (1) as proposed is consistent with the LCP; (2) requires no discretionary approval other than a Site Plan Permit; (3) with conditions as needed, has no adverse effect either individually or cumulatively on coastal resources, including public access, (4) requires a public hearing only where one is requested; (5) may be granted in compliance with the California Coastal Act and the LCP, (6) authorizes development and a specific use of land on a specific site, subject to compliance with any conditions of approval imposed on the permit, and (7) is for a site located outside of any area that would be appealable to the California Coastal Commission. The County Coastal Administrative Permit is a Site Plan Review Permit (STP).

Coastal Development Permit: A type of Coastal Development Permit that requires a public hearing that may be granted in compliance with the California Coastal Act and the LCP, and which authorizes development and a specific use of land on a specific site, subject to compliance with any conditions of approval imposed on the permit. The County CDP process is a Major Use Permit (MUP).

1.3 Local Coastal Planning History

The County initiated the development of an LCP following the approval of the Coastal Act. The LCP, inclusive of an LUP and an IP, was developed to implement the Coastal Act’s statewide goals and policies at the local level.

The County’s LUP and IP were approved in 1982 and 1985, respectively, by the CCC. The County deferred acceptance of the approved LCP due to the incorporation of the Cities of Solana Beach and Encinitas, which drastically reduced the size of the LCP area under County jurisdiction. Although the County adopted revised LUPs for the LCP in 1988 and 2011, these documents were not certified by the CCC.

Several efforts were made to revise the County’s LCP over the past 30 years, although a comprehensive update was not undertaken to maintain the document’s relevance under the Coastal Act and recent guidelines set forth by the CCC to address potential impacts from climate change and sea level rise (SLR).

1.4 General Goal and Objectives

The overarching goal of the County of San Diego is to protect and enhance the County’s coastal environment, natural resources, and recreational values while providing superior customer service to residents and property owners. To achieve this important community goal, the County has identified specific objectives for the LCP update:

- Develop a comprehensive LCP; and
- Secure Coastal Commission certification.

1.5 LUP Approach

PDS recently received a grant from the CCC to update the existing LCP to be in conformance with the Coastal Act. Accordingly, the LCP is updated to reflect current circumstances and new scientific information, including climate change and SLR. To support the LCP update, a report titled “County of San Diego Local Coastal Program Update Existing Conditions, Vulnerability and Risk, and Key Issues Report”, was produced that summarized existing data, identified SLR vulnerabilities and risks, and identified key issues for consideration in the LCP. The report is included as Appendix A. The contents of this report are consistent with the CCC’s Sea Level Rise Policy Guidance for California coastal communities (CCC 2015).

1.5.1 Climate Change Vulnerabilities and Risk Assessment

According to the CCC’s Sea Level Rise Policy Guidance (CCC 2015), to be consistent with the Coastal Act hazard avoidance and resource protection policies, it is critical that local governments with coastal resources at risk from SLR certify or update LCPs that provide a means to prepare for and mitigate these impacts. The CCC recommends the following six steps to address SLR as part of the development of an LCP.

1. Choose range of SLR projections relevant to LCP planning area
2. Identify potential SLR impacts in LCP planning area
3. Assess risks to coastal resources and development in planning area (i.e., identify problem areas)
4. Identify adaptation measures and LCP policy options
5. Draft updated or new LCP for certification with the CCC

6. Implement LCP and monitor and revise as needed

The LCP Update Report was prepared as part of the process to develop the LUP, which addressed Steps 1 through 3 above. This report is included as Appendix A.

1.6 LUP Organization

This section provides an overview of the organization of the LUP and briefly describes what each section contains.

The LUP consists of the following components as well as associated maps:

- Public Access and Recreation;
- Environmentally Sensitive Habitats;
- Water and Marine Resources;
- Agriculture;
- Scenic and Visual Resources;
- Planning, New Development, and Public Works;
- Coastal Hazards; and
- Cultural and Paleontological Resources.

Each policy section includes a series of policies for a number of subject areas related to the Coastal Act. Each policy section also includes LUP policies, which complement the Coastal Act policies and provide further protection of coastal resources. Some of the Land Use Plan policies have been adapted from existing County documents and/or ordinances, including the following:

- County of San Diego Community Trails Master Plan (CTMP) (County of San Diego 2005);
- County of San Diego Resource Protection Ordinance (RPO) (County of San Diego 2007)
- County of San Diego Multi-Jurisdictional Hazard Mitigation Plan (County of San Diego 2010);
- County of San Diego General Plan (County of San Diego 2011a);
- County of San Diego San Dieguito Land Use Plan (County of San Diego 2011b);
- County of San Diego Grading Ordinance (County of San Diego 2012)
- County of San Diego Consolidated Fire Code (County of San Diego 2014)
- County of San Diego Low Impact Development Handbook (County of San Diego 2014)
- County of San Diego San Dieguito Community Plan (County of San Diego 2014)
- County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance (County of San Diego 2016)
- County of San Diego Zoning Ordinance (County of San Diego 2016).

- County of San Diego Guidelines for Determining Significance (County of San Diego, various sections 2007-2015)

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2 Public Access and Recreation

2.1 Introduction

The San Dieguito Park constitutes the largest contiguous tract of recreational open space (125 acres) within the County’s Coastal Zone. The park is located southeast of the San Elijo Lagoon Ecological Reserve, bounded by Highland Drive, Linea Del Cielo, and a northeastern sliver of El Camino Real. The day-use park offers diverse recreation opportunities such as picnic areas, a fully accessible baseball field, a basketball court, equestrian and multi-use trails, multi-purpose pavilions for events, a wedding gazebo, and playgrounds (San Diego County 2015b). Restrooms, drinking fountains, and parking are available. The park is a popular recreational destination, garnering approximately 95,000 visitors annually. It is planned that ultimately, trails within the park will connect to local and regional trail networks. At this time, the Sun Valley/Lomas Santa Fe Connector Trail, connects to the El Camino Real/Sun Valley Road Path. The Road Path terminates 0.75 miles north of the planned San Dieguito River Park Trail (also the regional Coast to Crest Trail), at the boundary between County and City property. The park serves as a publicly accessible open space within the County’s Coastal Zone, which is otherwise surrounded by residential and private recreational areas.

The County’s Coastal Zone is within the San Dieguito Community Trails and Pathways Plan area of the San Diego County Community Trails Master Plan (2009). This plan notes that the popularity of hiking and horseback riding has increased significantly in recent years in this portion of the county. The San Dieguito community character is described as “clearly oriented toward a rural, estate residential life style.” Horse ownership and various equestrian activities are an essential part of the San Dieguito community. The Community Trails Master Plan states that the qualities of the Plan Area indicate that a public investment in equestrian trails in San Dieguito is not only likely to be successful, but, in the long run, should be a vital, permanent part of the regional recreation system (Community Trails Master Plan 2009). At this time, County trails in the Plan Area are multi-use, and therefore accommodate pedestrians, bicyclers, and equestrians.

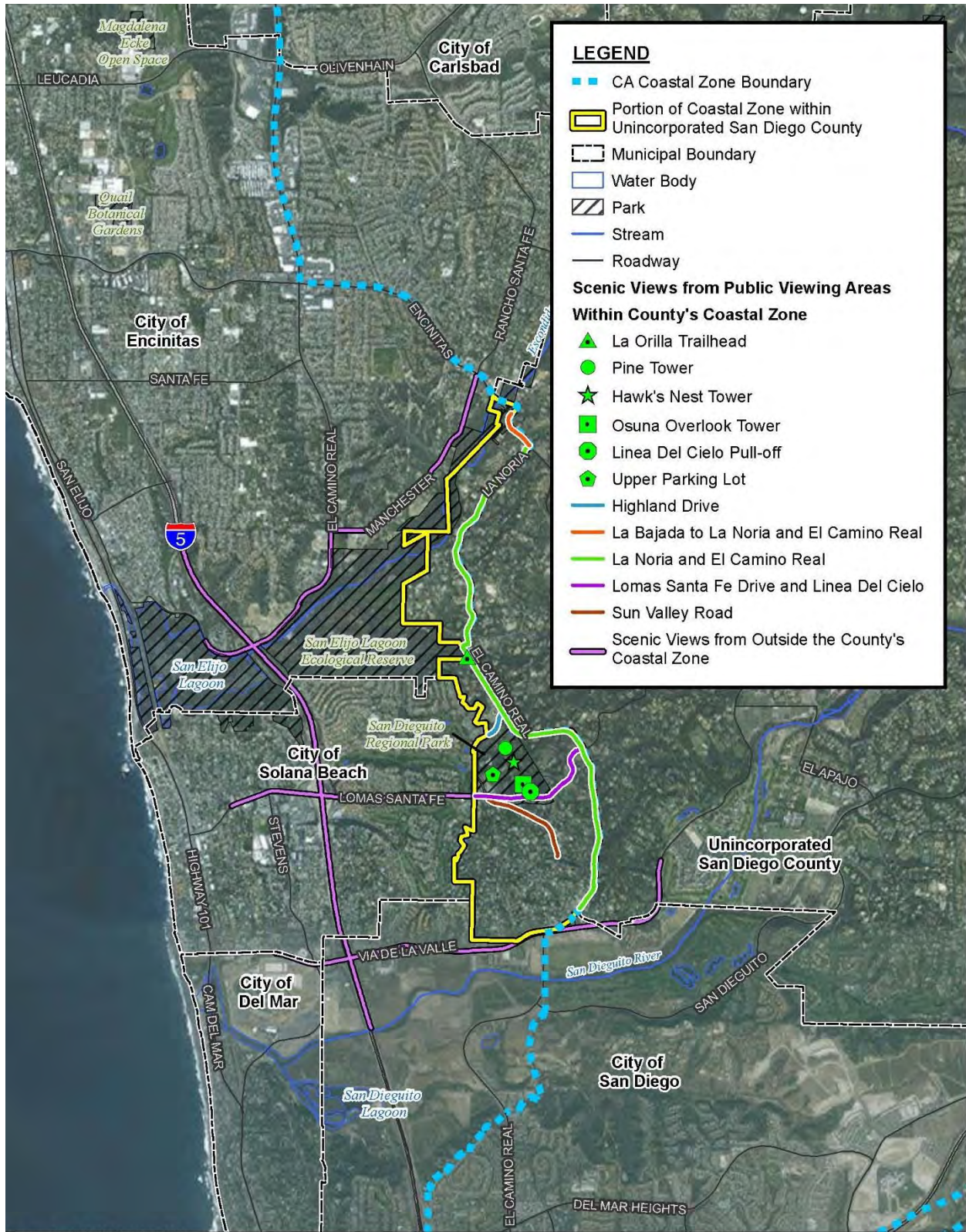
The Mobility Element road network that provides primary access to recreational areas within the Coastal Zone consists of existing two-lane light collector (2.2 F Light Collector) roadways with 12-foot wide travel lanes and 2-foot shoulders. The main roads are La Noria which turns into El Camino Real (north/south corridor), Via de la Valle (southern boundary), and Lomas Santa Fe Drive, see Figure 2. The Mobility Element roadways within the Coastal Zone are not planned for expansion under the existing 2011 General Plan.

2.1.1 Regional Trail Networks

California Coastal Trail

The California Coastal Trail (CCT) was recognized as a statewide and national resource in 2000. The vision for the CCT is to provide public trail access along California’s 1,100-mile-long coast as a continuous system that connects parks, beaches, bicycle routes, hostels, and other state and local trail networks (San Diego County, 2009). According to the Community Trails Master Plan (2009), San Diego County has 76 miles of

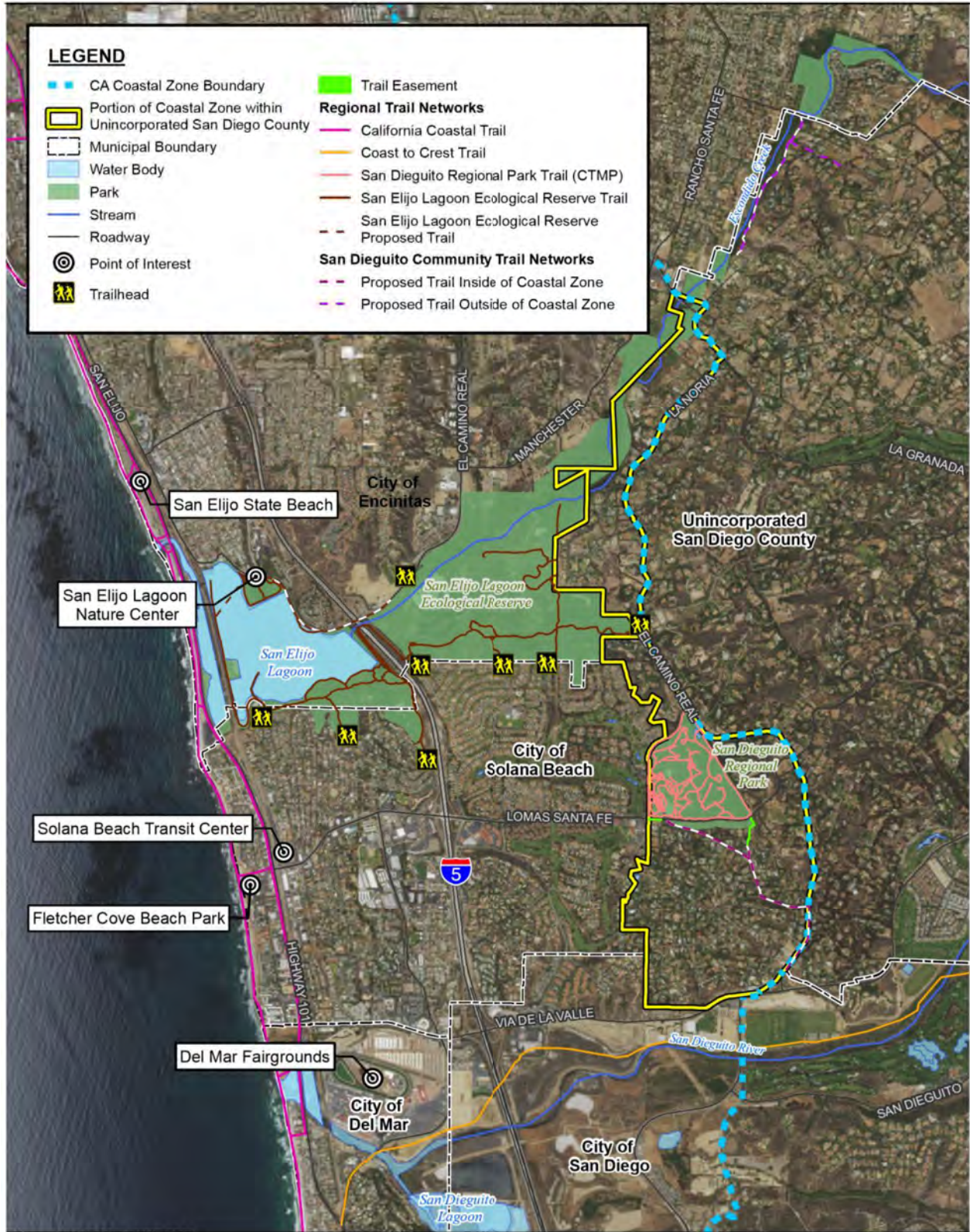
the coastal trail, with the creation of trails in progress in North County and San Diego Bay. Access to the CCT from the County’s Coastal Zone is possible starting from the La Orilla Trailhead (16398 El Camino Real in Rancho Santa Fe; identified in Figure 6, Publicly Accessible Vantage Points), trekking through the southern portion of San Elijo Lagoon (Figure 7, Regional Trail Network and Points of Interest).



Source: SanGIS 2016; NAIP 2014.



Figure 6
Publicly Accessible Vantage Points



Source: SanGIS 2016; NAIP 2014.



Figure 7
Regional Trail Network
and Points of Interest

Coast to Crest Trail

The Coast to Crest Trail, also called the San Dieguito River Park Trail, is located within the San Dieguito Lagoon and covers a distance of approximately 55 miles, extending from the beaches at Del Mar to the San Dieguito River’s source at Volcan Mountain (north of Julian), and does not enter the County’s Coastal Zone. The ultimate goal for this Coast to Crest Trail is to create a multi-use trail system for hikers, bicyclists, and horseback riders, though trail segments are still in progress. This trail is connected to the CCT, southwest of the Del Mar Fairgrounds. The Coast to Crest Trail runs south of Via de la Valle, and there are no trail connections or access points to the Coast to Crest Trail from the County’s Coastal Zone.

San Elijo Lagoon Ecological Reserve: The San Elijo Lagoon Ecological Reserve contains approximately 7 miles of hiking and multi-use trails, which allow for use by pedestrians, equestrians, and mountain bikers. While the lagoon trail network has multiple trailheads along the southern boundary of the San Elijo Lagoon Ecological Reserve (Figure 7), La Orilla Trailhead (Figure 6) is the only publicly accessible trailhead within the County’s Coastal Zone. The La Orilla Trailhead is located on El Camino Real in the central portion of the County Coastal Zone. This trailhead includes approximately ten off-street, unpaved parking spots and no restrooms or other developed facilities.

There are no developed facilities that service the southern trails that run through the San Elijo Lagoon Ecological. Restrooms and water are available at the Nature Center, located on the north side of the lagoon (2710 Manchester Avenue). Designed and constructed with the implementation of “green” building concepts, the Nature Center also contains interactive exhibits about the history and development of, and flora and fauna found in, the Ecological Reserve. The Nature Center provides regional value as an educational resource and serves as a rentable venue for meetings and events (San Diego County 2016b). The Nature Center is outside of the County’s Coastal Zone, but is accessible from the La Orilla Trailhead via the trail network within the San Elijo Lagoon Ecological Reserve.

2.1.2 Public Access Points

The majority of publicly accessible trails within the County’s Coastal Zone are located within the San Dieguito Park. Points of interest near the shoreline between the cities of Encinitas and Del Mar are identified on Figure 7, though these points are not located within the County’s Coastal Zone. These points of interest are not directly accessible via trails from the County’s Coastal Zone. Access to these points of interests is most convenient via Manchester Avenue (northern end of County’s Coastal Zone), Lomas Santa Fe (central portion of County’s Coastal Zone along southern boundary of the Park), and Via de la Valle (south of County’s Coastal Zone).

Public access points to coastal resources are limited in the County’s Coastal Zone. Based on existing conditions, establishing more public access points within the County’s Coastal Zone may be constrained by the surrounding residential communities. There may be some potential for additional public access in the northern region of the County’s Coastal Zone, adjacent to San Elijo Lagoon Ecological Reserve, where several areas have land uses and zoning designations for open space or preserves.

2.1.3 Community Trails Master Plan

The Community Trails Master Plan (CTMP) has established two forms of non-motorized facilities called “Trails” and “Pathways” that provide passive recreational and alternative modes of transportation. “Trails” are typically separate from vehicular roads that are primarily recreational in nature but also can serve as an alternative mode of transportation. “Pathways” are a non-motorized transportation facility 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. “Pathways” are 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. They are soft-surface facilities for single or multiple uses by pedestrians, equestrians, and mountain bicyclists. (CTMP 2009)

One “Trail” and one “Pathway” are proposed within the County’s Coastal Zone, noted in the CTMP (CTMP Table 5) and shown on Figure 7 south of the Park:

- Trail #37: El Camino Real / Sun Valley Road Pathway (estimated length of 1.28 miles), which would connect the San Diego Park Loop Trail to the border with the City of San Diego; and
- Trail #38: Sun Valley / Lomas Santa Fe Connector Trail (estimated length of 0.05 mile), which would connect a trail easement to Trail #37.

There are also two existing trail easements noted on the San Dieguito Community Trails and Pathways Plan map (2009)

- The segment of Lomas Santa Fe Drive (as it turns into Linea Del Cielo) between Sun Valley Road and Highland Drive (estimated length of 500 feet); and
- The Sun Valley/Loma Santa Fe Trail Easement, a north-south pathway between private residences, starting from Linea Del Cielo near La Floresta and ending at Echo Hill Lane (estimated length of 900 feet), which connects to proposed Trail #38 (The 410 foot Sun Valley/Lomas Santa Fe Connector Trail).

The CTMP includes a Trails Management Program that provides guidance for management, maintenance, and operations.

2.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to public access.

Section 30210

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. (Amended by Ch. 1075, Stats. 1978.)

Section 30211

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated access way shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the access way.

(b) For purposes of this section, "new development" does not include:

- (1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.
- (2) The demolition and reconstruction of a single-family residence; provided, that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.
- (3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.
- (4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not a seaward of the location of the former structure.
- (5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a Coastal Development Permit will be required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.

As used in this subdivision "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution. (Amended by: Ch. 1075, Stats. 1978; Ch. 919, Stats. 1979; Ch. 744, Stats. 1983.)

Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30213

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Section 30214

- (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
- (1) Topographic and geologic site characteristics.
 - (2) The capacity of the site to sustain use and at what level of intensity.
 - (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
 - (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.
- (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs. (Amended by: Ch. 919, Stats. 1979; Ch. 285, Stats. 1991.)

Section 30221

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Section 30222

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Section 30252

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Section 30253

New development shall do all of the following: (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

Section 30254

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Section 30604(c)

Every Coastal Development Permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200).

2.3 Land Use Plan Policies

This section provides land use policies relevant to the provision of public access and recreation.

2.3.1 Open Recreational Space and Access

Policy 2.1

The County will continue to actively protect and defend the public’s constitutionally guaranteed right of physical access to the shoreline.

Policy 2.2

Projects with open space shall design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities. Require adjacent residential development to locate their peripheral open space areas next to each other in order to maximize the beneficial effect provided by such a use.

Policy 2.3

Open space associated with future development intended to be preserved in perpetuity shall either be:

- (1) Retained in private ownership of the property owner or a third party with a restrictive easement that limits use of the land as appropriate; or
- (2) Transferred into public ownership of an agency that manages preserved open space.

The owner of the open space will be responsible for the maintenance and any necessary management unless those responsibilities are delegated through an adopted plan or agreement. Restrictive easements shall be dedicated to the County or a public agency (approved by the County) with responsibilities that correspond with the purpose of the open space. When transferred to a third party or public agency, a funding mechanism to support the future maintenance and management of the property should be established to the satisfaction of the County.

Policy 2.4

Enhance health and safety and conserve natural resources through the preservation of open space.

Policy 2.5

Provide recreational opportunities through the preservation of open space.

Policy 2.6

Preserve publicly and privately owned open space easements.

Policy 2.7

New facilities in or adjacent to protected open space areas shall be limited to only those improvements that provide or enhance public access or recreation activities. Accessibility improvements may be permitted when sited and designed to minimize adverse impacts to public access, visual resources, Environmentally Sensitive Habitat Area (ESHA), and marine resources. Any permitted structures shall be the alternative with the least impact on coastal resources, access and recreation, the minimum size necessary, and shall provide any necessary mitigation.

Policy 2.8

The County shall not close, abandon, or render unusable by the public any existing access-ways which the County owns, operates, maintains, or is otherwise responsible for without first obtaining a site development permit unless it is determined to be necessary on a temporary basis for public safety. Any access-ways which the County or any other managing agency or organization determines cannot be maintained or operated in a condition suitable for public use shall be offered to another public agency or qualified private association that agrees to open and maintain the access-way for public use.

Policy 2.9

Recreation and access opportunities at existing public parks shall be protected, and where feasible, enhanced as an important coastal resource. Public parks should maintain lower-cost parking fees (if any), and maximize hours of use to the extent feasible, in order to maximize public access and recreation opportunities.

Policy 2.10

Public access-ways and trails to the shoreline and public parklands shall be a permitted use in all land use and zoning designations. Where there is a future offer to dedicate, easement, or deed restriction for lateral, vertical or trail access or related support facilities e.g. parking, the County shall encourage the construction of necessary access improvements to allow the access-ways to be opened and operated for its intended public use.

Policy 2.11

Changes to existing public access ways required as part of an existing Coastal Development Permit shall not allow a reduction in access. Any such changes to public access would be required to be reviewed through a Coastal Development Permit amendment process.

Policy 2.12

Trails will be maintained at or near original or intended standards. This includes numerous efforts ranging from mowing and brush removal to replacement of damaged signs to reconstruction of the trail.

Policy 2.13

New subdivisions shall not include gates, guardhouses, or other features that would limit existing public access points.

Policy 2.14

Public parking shall not be discouraged through the use of unauthorized "no parking" signs placed on public or private property.

Policy 2.15

Maintain public access to key points of interest in and adjacent to the coastal zone through La Orilla Trailhead, the San Dieguito Park, Manchester Avenue, and Lomas Santa Fe.

Policy 2.16

Explore opportunities for new points of land and water access adjacent to San Elijo Lagoon Ecological Reserve, where several parcels containing land use and zoning designations for open space or preserve currently exist.

2.3.2 Alternative Modes of Travel for Coastal Recreation

Policy 2.17

The County shall undertake planning efforts that promote infill and redevelopment of uses that accommodate walking and biking within communities.

Policy 2.18

The County will support increased public transportation service and funding in relation to the County's Coastal Zone within the unincorporated County boundary.

Policy 2.19

The County shall provide a range of trail lengths and types, including long distance trails, short distance trails, and loop experiences. Where feasible, trails should provide coastal access and connect with other public trail systems, such as the California Coastal Trail, points of interest or transit facilities.

Policy 2.20

A network of multi-use trails shall be located along natural scenic areas, (e.g. Escondido Creek and San Elijo Lagoon) where feasible. Trails shall be continuous and shall connect into existing and proposed adjacent trails, such as the California Coastal Trail, in the surrounding area.

Policy 2.21

Safely separate pedestrian, bicycle and vehicular traffic when these modes share rights-of-way, as development occurs and improvements are implemented.

Policy 2.22

Establish and maintain a separate system of hiking trails, bicycle paths and equestrian trails from which motorized vehicles will be banned.

Policy 2.23

The County will support the development of additional bicycle facilities in the County’s Coastal Zone, with the construction of bicycle routes on El Camino Real from the San Diego City Boundary to Linea Del Cielo, and on Linea Del Cielo Drive from San Valley Road to El Camino Real.

Policy 2.24

Provide a network of trails for horseback riding, biking, and hiking; and minimize the cost of the trail system by utilizing floodplains, existing trails, public lands and major utility rights-of-way. Trails within floodplains will be designed to be ephemeral, to the extent feasible.

Policy 2.25

When locating specific trail segments, locations that avoid significant impacts to sensitive environmental resources shall be prioritized.

Policy 2.26

The County shall identify trail routes that enhance public access and connectivity while recognizing the concerns of private property owners, safety requirements, and land use concerns and environmental protection goals.

2.3.3 Active Transportation Priorities

Policy 2.27

The provision of bicycle and other Complete Streets improvements on County Mobility Element roads within the Coastal Zone shall be maximized to provide a safe and continuous bicycle and pedestrian network in rural areas that can be used for recreation or transportation purposes, while retaining rural character.

Policy 2.28

The County shall promote pedestrian and bicycle facility standards for facility design that are tailored to a variety of urban and rural contexts according to their location.

Policy 2.29

Provide and expand the variety of trail experiences that provide recreational opportunities, including urban/suburban, rural, wilderness, multi-use, staging areas, and support facilities.

Policy 2.30

Trail opportunities shall be promoted by obtaining easements, dedications, license agreements, or joint-use agreements from other government agencies and public and semi-public agencies.

Policy 2.31

Specific trail segments shall be sited, designed, and maintained to avoid, then minimize impacts to sensitive environmental resources, ecological system and wildlife linkages and corridors, and agricultural lands.

Within the Draft North County Multiple Species Conservation Plan (MSCP) preserves, conform siting and use of trails to County MSCP Plans and MSCP resource management plans.

Policy 2.32

Trail route design shall meet a public need and highlight the County’s biological, recreational and educational resources, including natural, scenic, cultural, and historic resources.

Policy 2.33

Manage, operate and maintain trails so that proper use is encouraged, and user safety, resource conditions, the environment, and adjacent land uses are preserved to the extent feasible. Public access to natural and cultural (where allowed) resources shall be provided through effective planning that conserves the County’s native wildlife, enhances and restores a continuous network of connected habitat and protects water and cultural resources.

2.3.4 Recreational Facilities and Lodging

Policy 2.34

The County shall provide parks and recreation facilities that create opportunities for a broad range of recreational experiences to serve user interests.

Policy 2.35

Park design shall reflect community character and identity, incorporate local natural and cultural landscapes and features, and consider the surrounding land uses and urban form and cultural and historic resources.

Policy 2.36

Public parks shall be connected to trails and pathways and other pedestrian or bicycle networks where feasible to provide linkages and connectivity between recreational uses.

Policy 2.37

The County shall provide local park facilities that are appropriate for the individual neighborhoods and communities in which they are located. The development of public recreation facilities shall be encouraged throughout the County’s Coastal Zone.

Policy 2.38

Retention of existing, lower cost visitor serving and recreation facilities, including overnight accommodations, shall be encouraged and lower cost overnight accommodations shall be protected.

Policy 2.39

County Department of Public Works is responsible for maintenance of designated pathways within County right-of-way. Maintenance guidelines shall include:

- Keeping the pathway free of weeds, brush, rocks, or other obstructions.
- Trimming trees and other vegetation to maintain a minimum vertical (overhead) clearance in accordance with County policy and standards.
- Repairing erosion in a timely manner by grading, placement of new base material, or installing engineered drainage controls.
- Ensuring driveway approaches crossing designated pathways have a natural or rough surface; and enforcing the removal of non-permitted polished or slick surfaces.

Policy 2.40

All trails are considered major public works and are appealable to the California Coastal Commission. All trails located adjacent to or within ESHA shall be for non-motorized use only and are required to comply with the following:

- All activities involved with trail design, construction, usage, and maintenance will incorporate appropriate methods that reduce potential impact to ESHA, including:
 - Utilizing a trail design and construction methods that are least impactful to ESHA.
 - Utilizing non-mechanized equipment for trail construction and maintenance.
- Trail tread will be constructed with native soil (or disintegrated granite if necessary) and trail width will be minimized to reduce impacts to critical habitat and resources.
- Site design objectives will include avoidance and/or minimization of impacts to biological resources.

- Access, non-native predators, and other non-native and invasive species, illumination, point source drain water, non-point source runoff, and noise will all be taken into consideration during planning and construction of trails.
- Sufficient signs and appropriate barriers will be located to clearly identify access.
- The County’s Coastal Zone contains approximately four (4) miles of non-motorized trails located within ESHA; this amount of trails can be maintained, rerouted or redesigned as necessary within the County’s coastal zone, provided that the ultimate extent of multi-use trails does not increase beyond six (6) miles of linear trails within or adjacent to ESHA.
- Non-motorized trails located within a public road right-of-way are allowable, and shall not be counted against the limit placed on trails in ESHA within the County’s Coastal Zone.

Policy 2.41

For any new development adjacent to, or within 100 feet of a public park, beach, trail, or recreation area, notice of proposed developments shall be provided, as applicable, to the San Elijo Lagoon Conservancy and the California Department of Parks and Recreation for their review with regard to potential impacts to public access, recreation, ESHA, and any other sensitive environmental resources.

Policy 2.42

The County shall coordinate with the California Department of Parks and Recreation, the San Elijo Lagoon Conservancy, and Caltrans to provide a comprehensive signage program to identify public parks, trails and accessways.

Policy 2.43

New development shall provide off-street parking in accordance with regulations established in the IP and consistent with the County’s Zoning Ordinance, and sufficient to serve the approved use in order to minimize impacts to public street parking available for coastal access and recreation.

Policy 2.44

The implementation of restrictions on public parking, which would impede or restrict public access to beaches, trails or parklands, (including, but not limited to, the posting of “no parking” signs, red curbing, physical barriers, imposition of maximum parking time periods, and preferential parking programs) shall be prohibited except where such restrictions are needed to protect a documented threat to public safety and where no other feasible alternative exists to provide public safety. Where feasible, an equivalent number of public parking spaces should be provided nearby as mitigation for impacts to coastal access and recreation.

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3 Environmentally Sensitive Habitats

3.1 Introduction

The Coastal Act sets high standards for the protection of Environmentally Sensitive Habitat Areas (ESHA), including various types of wetlands, riparian areas, native coastal grasslands, and woodlands, and other natural resources in the coastal zone.

3.1.1 Biological Resources Overview

The following is summarized from the Biological Resources Summary Memorandum prepared for the County (AECOM 2016).

Historical Records of Natural Resources within the County's Coastal Zone

The following resources were reviewed to determine what historically recorded natural resources occur, or have the potential to occur, within the County's Coastal Zone. Select information pertaining to both common and special-status resources in the County's Coastal Zone was reviewed for the update of the LCP. The following sources were consulted to obtain public information relevant to the County's Coastal Zone:

- U.S. Fish and Wildlife Service (USFWS) regional species database (USFWS 2015);
- County of San Diego SanGIS Geographic Information System (GIS) Data for Species (SanGIS 2016);
- County of San Diego SanGIS Data for Vegetation Communities (SanGIS 2006 and 2012);
- San Diego Bird Atlas (Unitt 2005);
- California Natural Diversity Data Base (CNDDDB) (California Department of Fish and Wildlife [CDFW] 2016a);
- California Native Plant Society (CNPS) Electronic Inventory (CNPS 2016); and
- San Dieguito Community Plan - Escondido Creek Resource Conservation Area (RCA) Rare Species List (County of San Diego 2014).

For the CNDDDB and CNPS database queries, special-status species records within the Del Mar, Encinitas, and Rancho Santa Fe United States Geological Survey (USGS) 7.5-minute topographic quadrangles were searched. These three quadrangles were included in the search because they contain the portion of the County's Coastal Zone that encompasses and surrounds the LCP area. The traditional nine-quadrangle search could not be implemented because of the County Coastal Zone's proximity to the Pacific Ocean.

Biological resources were considered special status if they met at least one of the following criteria:

- Listed or proposed for listing (including candidate species³) under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA);
- CDFW Species of Special Concern;
- CDFW Watch List Species;
- CDFW Fully Protected species;
- Listed by CNPS as California Rare Plant Ranks (CRPR) 1A (presumed extinct in California and rare/extinct elsewhere); 1B (rare, threatened, and endangered in California and elsewhere); 2A (presumed extinct in California, but more common elsewhere); or 2B (rare, threatened, or endangered in California, but more common elsewhere) (CNPS 2016). All plants constituting CRPR 1A, 1B, 2A, and 2B meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code (CNPS 2016);
- Some, but not all, CRPR 3 and 4 species. Some plants constituting CRPR 1A, 1B, 2A, and 2B meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code (CNPS 2016). CRPR 3 plants are those for which more information is needed (a review list), and CRPR 4 plants are those of limited distribution (watch list) (CNPS 2016);
- Species covered by the San Diego County MSCP (SanGIS 2016); and/or
- Rare Terrestrial Natural Communities as described in the CDFW Natural Communities List (CDFW 2010), which is based on *A Manual of California Vegetation, Second Addition* (Sawyer *et al.* 2009)

Vegetation Communities and Other Land Cover Types

Vegetation communities and other land cover types within the LCP area were assessed using the aforementioned San Diego County SanGIS vegetation community databases (SanGIS 2006 and 2012). The most recent vegetation data (2012) were used to map and characterize the communities and land cover types, while the 2006 data were used to fill gaps in the 2012 data. Nomenclature in the SanGIS data follows *Draft Vegetation Communities of San Diego County* (Oberbauer *et al.* 2008). The LUP did not include ground-truthing the location and extent of the vegetation communities mapped in the SanGIS database.

Roughly 21 vegetation communities and other land cover types are estimated to occur within the County's Coastal Zone based on literature and database review. Table 1 includes the acreages for each vegetation

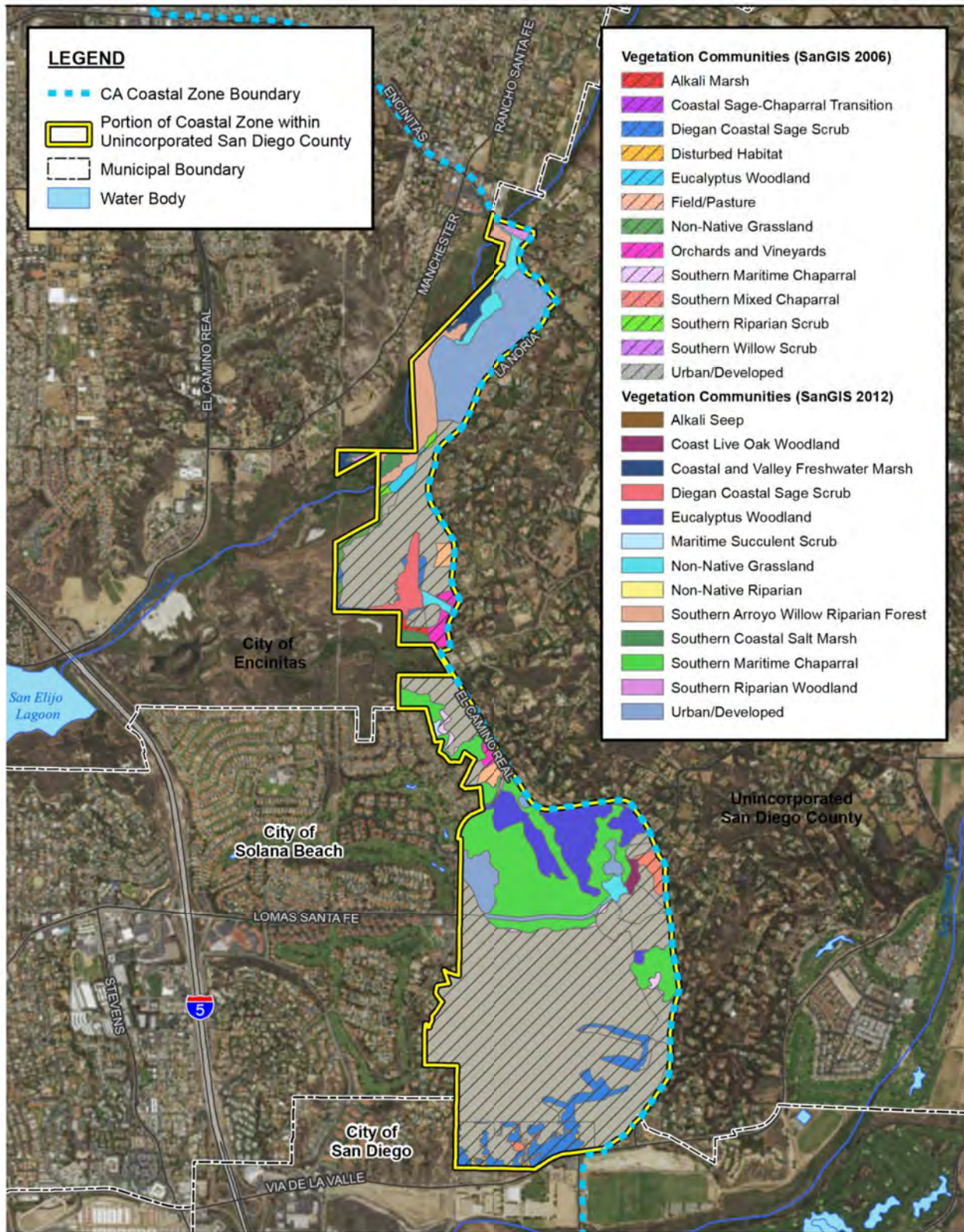
³ Candidate species are those petitioned species that are actively being considered for listing under the federal ESA, as well as those species for which the USFWS has initiated an ESA status review, as announced in the Federal Register. Proposed species are those candidate species that warrant listing as determined by USFWS and have been officially proposed for listing in the Federal Register. Under the California Endangered Species Act, candidate species are those species currently petitioned for state-listing status.

community or land cover type within the County’s Coastal Zone, as illustrated in Figure 8, Vegetation Communities and Other Cover Types.

Table 1. Vegetation Communities and Other Land Cover Type Acreages in the County’s Coastal Zone

Vegetation Community/Land Cover Type	Acreage
Marsh/Wetland/Riparian	
Alkali Marsh*	2.5
Alkali Seep*	0.6
Coastal Valley Freshwater Marsh*	11.0
Non-Native Riparian*	0.8
Southern Arroyo-Willow Riparian Forest*	31.5
Southern Coastal Salt Marsh*	9.3
Southern Riparian Scrub*	2.6
Southern Riparian Woodland*	4.0
Southern Willow Scrub*	0.04
Uplands	
Coastal Sage-Chaparral Transition*	0.8
Coast Live Oak Woodland*	3.1
Diegan Coastal Sage Scrub*	61.7
Disturbed Diegan Coastal Sage Scrub*	0.5
Eucalyptus Woodland	57.8
Maritime Succulent Scrub*	1.2
Non-Native Grassland*	25.3
Southern Maritime Chaparral*	141.7
Southern Mixed Chaparral*	8.9
Other Land Cover Types	
Field/Pasture	8.8
Orchards and Vineyards	10.1
Urban/Developed	677.2
TOTAL	1,059.4

*Considered an ESHA based on the preliminary analysis described in this chapter.
Please see Section 2.3 for a full discussion of ESHA delineation.



Source: SanGIS 2016; NAIP 2014.

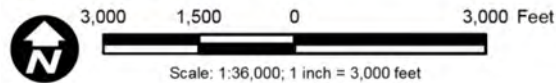


Figure 8
Vegetation Communities and Other Cover Types

Rare Terrestrial Natural Communities

Rare Terrestrial Natural Communities were considered special-status if they were listed and described in the CDFW Natural Communities List (CDFW 2010), which is based on *A Manual of California Vegetation, Second Edition* (Sawyer *et al.* 2009). The CNDDDB was not used to determine the location of historically occurring sensitive vegetation communities, as the CDFW List of Natural Communities replaced all other lists of terrestrial natural communities and vegetation types developed for the CNDDDB (CDFW 2016b). Instead, the SanGIS vegetation communities (Oberbauer *et al.* 2008) mapped in Figure 8 and listed in Table 1 were used to determine the location of Rare Terrestrial Natural Communities by creating a crosswalk between the SanGIS (Oberbauer *et al.* 2008) and the CDFW (Sawyer *et al.* 2009) classification systems. The crosswalk was created by looking at the community descriptions in each system and determining which were the most similar based on dominant, co-dominant and associated species. More weight was given to dominants over co-dominants and co-dominants over associated species. Table 2 is included in Section 3.1.3 – *Rare Terrestrial Natural Communities and Wetlands*, along with a list of the Rare Terrestrial Natural Communities found within the LCP area.

Special-Status Species

Based on a desktop analysis of the resources listed in Section 3.1.1, 71 special-status wildlife species and 107 special-status plants have been historically recorded within the three-quadrangles that overlap the County's Coastal Zone (Encinitas, Del Mar, and Rancho Santa Fe) and, therefore, may have some potential to occur within the LCP area based on the presence of suitable habitat. Each species, along with their listing status and habitat requirements, are included in Appendix B. Focused surveys and detailed vegetation mapping are required on a project-by-project basis to determine the presence, absence or potential for a species to occur within the County's Coastal Zone.

Figure 9, Historical Special-Status Species Records, illustrates the locations of special-status species found in the vicinity of the County's Coastal Zone according to the GIS databases that were queried during the literature search. These include the SanBIOS (SanGIS 2016), San Diego Bird Atlas (Unitt 2005), and USFWS GIS (USFWS 2015) databases. It is noted that, although the GIS database search area included three USGS topographic quadrangles, Figure 9 was scaled down to give a regional context that includes the significant ecological landmarks or wildlife refuges around the LCP area. These are Escondido Creek, San Elijo Ecological Reserve, San Elijo Lagoon, the Park, San Dieguito Reservoir, and San Dieguito Lagoon.

Multiple Species Conservation Program

It should be noted that the County is currently working on the MSCP North County Plan. The County's Coastal Zone is located within the boundaries of the North County Plan. Thus, additional biology policies may apply to the County's Coastal Zone once the North County Plan is finalized. In order for these policies to be included in the County's LCP, a future LCP amendment will be required.

Steep Slopes

Coastal mixed chaparral and coastal sage scrub thrive on hilly terrain and steep slopes within the County's Coastal Zone (County of San Diego 2014). Steep slopes, as defined in County Zoning Ordinance 5957(a),

are natural slopes of 25% grade or greater and occur throughout the County Coastal Zone, as shown on Figure 10, Steep Slopes. Improper management of steep slopes can degrade these habitats, contribute to erosion issues, and potentially exacerbate coastal hazards, such as hillside-related geologic hazards. Policies to protect steep slopes have been included in Section 3.3.

3.1.2 Natural Resource Definitions

Environmentally Sensitive Habitat Areas

Coastal Act Section 30107.5 Definition of Environmentally Sensitive [Habitat] Areas

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.

Section 30240(a) of the Coastal Act restricts development within ESHA to only those uses that are dependent on the resource and requires that ESHA be protected against significant disruption of habitat values. Section 30240(b) requires that areas adjacent to ESHA and parks and recreation be sited and designed to prevent degradation of those areas to be compatible with the continuance of those habitat and recreation areas. Pursuant to Section 30107.5, in order to determine whether an area constitutes an ESHA, and is therefore subject to the protections of Section 30240, the CCC has asked if either of the following conditions have been met: 1) There are rare species or habitat in the subject area; 2) There are especially valuable species or habitat in the area, which is determined based on: a) whether any species or habitat that is present has a special nature, OR b) whether any species or habitat that is present has a special role in the ecosystem. Valuable species or habitats that have a special nature or a special role in the ecosystem include those resources defined as "special-status" in Section 3.1.1. When the CCC has found that either of these two conditions is met, it has assessed whether the habitat or species meeting these conditions is easily disturbed or degraded by human activities and developments. If they are, the CCC has found the area to be an ESHA. It should be noted that disturbed or degraded habitats may constitute ESHA if the habitat meets the criteria for an ESHA designation.

Wetlands

Wetlands provide many benefits such as fish and wildlife habitats, natural water quality improvement, flood storage, shoreline erosion protection, opportunities for recreation and aesthetic appreciation, and natural products for our use at little or no cost. Protecting wetlands can, in turn, protect our health and safety by reducing flood damage and preserving water quality. Wetlands are among the most productive ecosystems in the world. They also are a source of substantial biodiversity in supporting numerous species from all of the major groups of organisms – from microbes to mammals.

Within the vicinity of the County's Coastal Zone, wetlands occur primarily along Escondido Creek, San Elijo Lagoon, and along a few urban drainages in the City. Jurisdictional areas include wetlands and non-wetland waters (e.g., reservoirs, lagoons, and streams) subject to California Fish and Game Code Section 1600 et seq. and Section 404 of the federal Clean Water Act. Table 1 provides a list of the wetland

communities and the approximate acreages that occur within the County’s Coastal Zone; each is briefly described below.

As shown on Figure 8, approximately 2.5 acres of Alkali Marsh are located at the toe of a slope near the intersection of El Camino Real and La Orilla. Along Escondido Creek, wetland areas include approximately 2.5 acres of Southern Riparian Scrub; several small, scattered patches of Southern Willow Scrub totaling around 0.04 acre; two patches of Coastal and Valley Freshwater Marsh, comprising 11 acres; approximately 0.6 acres of Alkali Seep located near the northern tip of the County’s Coastal Zone; 31.5 acres of Southern Arroyo Willow Riparian Forest; three patches of Southern Coastal Salt Marsh, comprising 9.3 acres; and three patches of Southern Riparian Woodland totaling four acres.

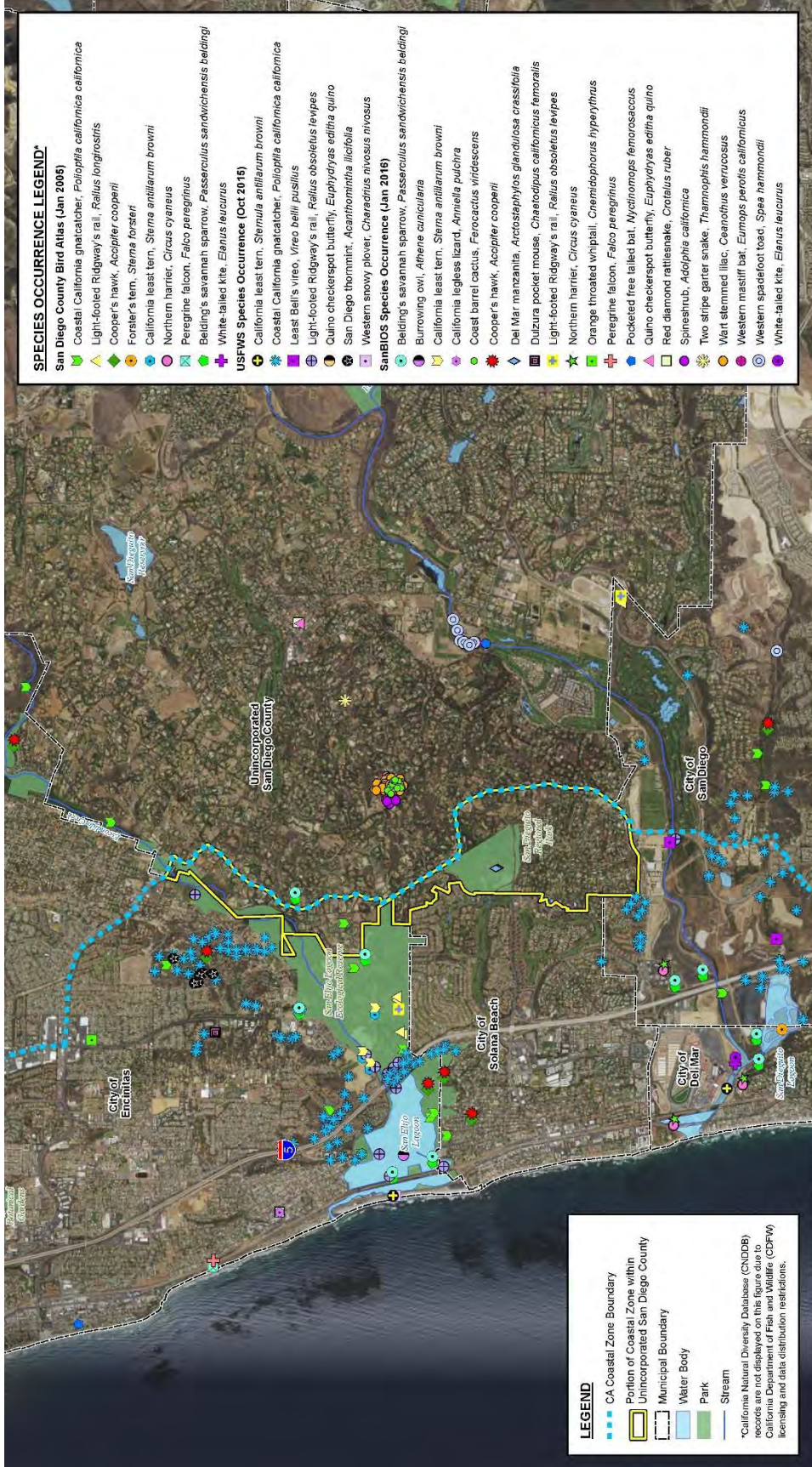
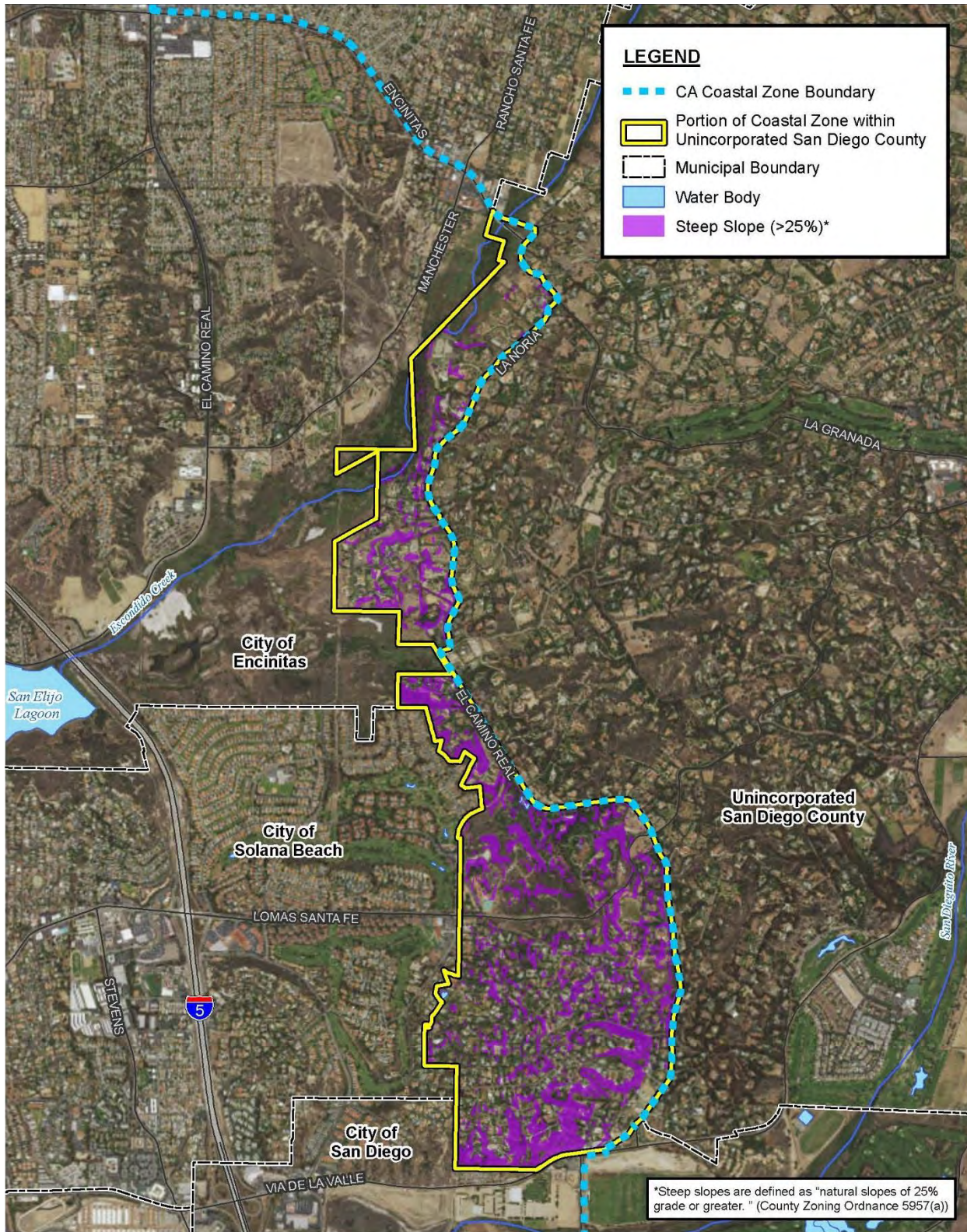


Figure 9
Historical Special-Status Species Records



Source: SanGIS 2016; NAIP 2014.

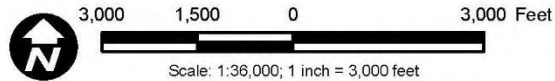


Figure 10
Steep Slopes

Coastal Act Section 30121 Definition of Wetland

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

CCR Section 13577(b) (in part)

Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate.

Based on these definitions, to be classified as a wetland under the Coastal Act, areas need to display one of the three wetland parameters typically used to define wetland areas, unlike the U.S. Army Corps of Engineers, which uses a three-parameter definition under its federal authority. The presence of the hydrology parameter raises additional criteria that must be met for a land area to be classified as a wetland, as described above in CCR Section 13577(b).

The Coastal Act definition of wetland (§ 30121) does not distinguish between wetlands according to their quality. Thus, under the Coastal Act, poorly functioning or degraded areas that meet the definition of wetlands are subject to wetland protection policies. To ensure consistency with the Coastal Act, therefore, the condition of the wetland would not affect its regulatory status as a defined wetland under the LCP.

3.1.3 Identification of ESHAs

Per the natural resource definitions described in Section 3.1.1, a preliminary identification of ESHAs within the County's Coastal Zone was based on the presence of one or more of the following parameters:

- Vegetation community mapped within the County's Coastal Zone by the County of San Diego SanGIS database (SanGIS 2006 and 2012) is considered a Rare Natural Terrestrial Community by CDFW (CDFW 2010);
- Vegetation community mapped within the County's Coastal Zone by the County of San Diego SanGIS database (SanGIS 2006 and 2012) qualifies as a wetland under the definition provided in Section 3.1.2;
- Vegetation community mapped within the County's Coastal Zone by the County of San Diego SanGIS database (SanGIS 2006 and 2012) has the potential to support one or more special-status species based on records yielded within the County's Coastal Zone during the historical literature and database review described in Section 3.1.1 (USFWS 2015, SanGIS 2016, Unitt 2005, CDFW 2016a, and County of San Diego 2014).

A total of approximately 305 acres of habitat were mapped as ESHA within the County's Coastal Zone per the aforementioned parameters. The ESHAs, delineated in Figure 11 Environmentally Sensitive Habitat Areas, represent those areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development. This section and Figure 11 do not represent an exhaustive compilation of the areas that meet ESHA or wetland definition; rather, they are an illustrative tool to help identify potential resources, and it is the actual presence of ESHA on the site that should dictate whether ESHA policies apply to a site. No site visits were conducted as part of this preliminary assessment.

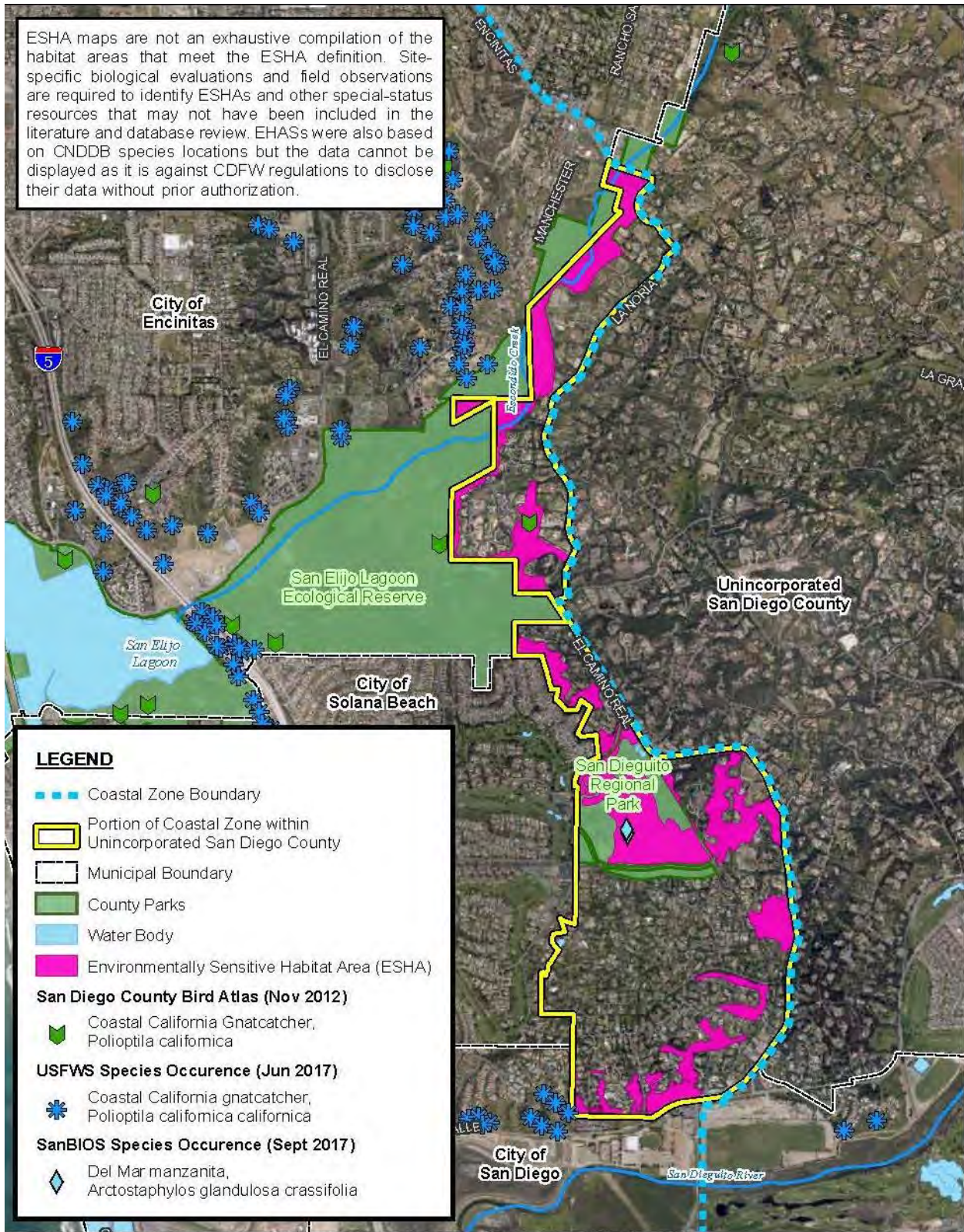
Site-specific biological evaluations and field observations shall be required as part of future specific project review to identify ESHAs and other special-status resources that may not have been included in the literature and database review. If an area is not designated on the ESHA Map as ESHA, it will be treated as ESHA if a site-specific study at the time of the proposed development shows that it meets the criteria for an ESHA designation. The LUP policies establish that the presence of ESHA not already designated on the ESHA map shall be determined on the basis of site-specific study prior to the approval of any development. Such determinations shall be reviewed by PDS. Any changes to the ESHA map will require an amendment to the LCP to update the map. Regardless of the mapped ESHA designation of any particular area, habitat area found to meet the definition of ESHA shall be accorded all protection provided for ESHA by the LUP.

Rare Natural Terrestrial Communities and Wetlands

The following vegetation communities mapped within the County's Coastal Zone by the County of San Diego SanGIS database (SanGIS 2006 and 2016) are either considered a Rare Natural Terrestrial Community by CDFW (CDFW 2010) or qualify as a wetland under the definition provided in Section 3.1.2. Therefore, the following vegetation communities were delineated as ESHAs (Figure 11):

Special-Status Species

Two historical special-status species records are located within the County's Coastal Zone: coastal California gnatcatcher (*Polioptila californica californica*), a special-status bird (Federally Threatened) that nests in Diegan Coastal Sage Scrub (CNDDDB 2016); and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), a perennial special-status plant (Federally Endangered/CNPS List 1B.1) that occurs in Southern Maritime Chaparral (CNPS 2016). Coastal California gnatcatcher and Del Mar manzanita are proposed as covered species in the MSCP North County Plan. While these are historical records from databases that may be slightly inaccurate with regard to exact location, the ESHA boundary was delineated around these data points per the requirements of the LCP Update Guide. For the coastal California gnatcatcher location, the ESHA includes all Diegan Coastal Sage Scrub habitat within the County's Coastal Zone; including the Coastal Sage-Chaparral Transition areas (see Figures 8 and 11). For the Del Mar manzanita location, the ESHA includes all Southern Maritime Chaparral habitat within the County's Coastal Zone (see Figures 8 and 11).



Source: SanGIS 2017 (SanBios Species Occurrence); USFWS 2017 (Species Occurrence); San Diego County Bird Atlas 2012.

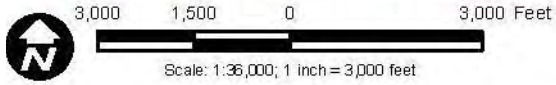


Figure 11
Environmentally Sensitive
Habitat Areas (ESHAs)

Table 2. Rare Natural Terrestrial Communities and Wetlands in the County’s Coastal Zone

SanGIS Database (Oberbauer <i>et al.</i> 2008)	CDFW Natural Communities List (Sawyer <i>et al.</i> 2009)
Wetlands	
Alkali Marsh	Warm Semi-Desert/Mediterranean Alkali–Saline Wetland
Alkali Seep	<i>Juncus acutus</i> Provisional Alliance
Coastal Valley Freshwater Marsh	<i>Schoenoplectus americanus</i> Alliance
Non-Native Riparian	Naturalized Warm-Temperate Riparian and Wetland Semi-Natural Stands
Southern Arroyo-Willow Riparian Forest	<i>Salix lasiolepis</i> Alliance
Southern Coastal Salt Marsh	<i>Frankenia salina</i> Alliance
Southern Riparian Scrub	Southwestern North American Riparian, Flooded and Swamp Forest
Southern Riparian Woodland	<i>Salix gooddingii</i> Alliance
Southern Willow Scrub	Southwestern North American Riparian, Flooded and Swamp Forest
Rare Terrestrial Natural Communities	
Coastal Sage-Chaparral Transition	N/A
Coast Live Oak Woodland	<i>Quercus agrifolia</i> Alliance
Diegan Coastal Sage Scrub	<i>Artemisia californica-Eriogonum fasciculatum</i> Alliance
Disturbed Diegan Coastal Sage Scrub	N/A
Maritime Succulent Scrub	<i>Opuntia littoralis</i> Alliance
Non-Native Grassland	Mediterranean California Naturalized Annual and Perennial Grassland Semi-Natural Stands
Southern Maritime Chaparral	<i>Adenostoma fasciculatum</i> Alliance
Southern Mixed Chaparral	<i>Quercus berberidifolia</i> Alliance

In addition, although no records of historical occurrence were identified, the potential for Encinitas baccharis (*Baccharis vanessae*), coastal cactus wren (*Campylorhynchus brunneicapillus*), least Bell’s vireo (*Vireo bellii pusillus*), and Belding’s savannah sparrow (*Passerculus sandwichensis beldingi*) to occur within the County’s Coastal Zone should be considered on a case-by-case basis due to the proximity of known occurrences and suitable habitat adjacent to the County’s Coastal Zone. Because these four species and their habitats are in close proximity to the region covered by this LCP, they were included among those to be evaluated in making ESHA determinations. Suitable habitat for Encinitas baccharis includes several chaparral habitat types below 3,000 feet; therefore, the designated ESHA includes all Southern Maritime Chaparral and Southern Mixed Chaparral within the County’s Coastal Zone. These habitats also support the federally listed California gnatcatcher. The closest known occurrence of Encinitas baccharis is located approximately 1.75 miles north of the County’s Coastal Zone (pers.com. Jonathan Dunn 2016). Suitable habitat for coastal cactus wren includes Maritime Succulent Scrub and Diegan Coastal Sage Scrub with abundant prickly pear (*Opuntia littoralis* and *O. oricola*) and coastal cholla (*O. prolifer*) for nesting; therefore, the designated ESHA includes all Maritime Succulent Scrub and Diegan Coastal Sage Scrub within the County’s Coastal Zone. The closest known occurrence of coastal cactus wren is located 0.5 mile west of the County’s Coastal Zone (CDFW 2016a). Suitable habitat for least Bell’s vireo includes riparian woodland and riparian scrub communities; therefore, the designated ESHA includes all Southern Riparian Scrub, Southern Willow Scrub, Southern Arroyo Willow Riparian Forest, and Southern Riparian Woodland within the County’s Coastal Zone. The closest known occurrence of least Bell’s vireo is located

approximately 1,000 feet south of the County's Coastal Zone within the San Dieguito River (USFWS 2015) (Figure 9). Suitable habitat for Belding's savannah sparrow includes grasslands with few trees, including meadows, grassy roadsides, and sedge wetlands. Near oceans, they also inhabit tidal saltmarshes and estuaries. Therefore the ESHA designated in this document includes all non-native Grassland, Coastal and Valley Freshwater Marsh, and Southern Coastal Salt Marsh within the County's Coastal Zone. The closest known occurrence of Belding's savannah sparrow is just outside of the western boundary of the County's Coastal Zone within the San Elijo Lagoon Ecological Reserve (Unitt 2004) (Figure 9).

It is noted that other vegetation communities within the County's Coastal Zone have the potential to support special-status species and therefore possibly qualify as an ESHA. Based on a desktop analysis of the resources listed in Section 3.1.1, 71 special-status wildlife species and 107 special-status plants have been historically recorded within the Encinitas, Del Mar and Rancho Santa Fe quadrangles, therefore may have some level of potential to occur within the County's Coastal Zone based on the presence of suitable habitat. Each species, along with their listing status and habitat requirements, are included in Appendix B. Focused surveys and detailed vegetation mapping are required on a project-by-project basis to determine the presence, absence or potential for a species, as well as their habitat to occur within the County's Coastal Zone.

3.1.4 Coastal Act Provisions

A chief objective of the Coastal Act is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. The rarest and most ecologically important habitats are to be protected from impacts related to development.

Section 30240 requires the protection of ESHA against any significant disruption of habitat values. No development, with the exception of uses dependent on the resources, is allowed within any ESHA. This policy further requires that development adjacent to ESHA be sited and designed to prevent impacts that would significantly degrade ESHA and to be compatible with the continuance of the habitat areas. Finally, development adjacent to parks and recreation areas must be sited and designed to prevent impacts. If the application of the ESHA policies would result in taking private property for public use, without the payment of just compensation, then a use that is not resource dependent may be permitted in accordance with the policies in this chapter of the LUP. The LUP policies below set forth the process and parameters for approval of such a use.

In addition to the protection of ESHA, streams and associated riparian habitat also are protected in order to maintain the biological productivity and quality of coastal waters. Section 30231 requires that natural vegetation buffer areas that protect riparian habitats be maintained and that the alteration of natural streams be minimized. Section 30236 limits channelizations, dams, or other substantial alterations of rivers and streams to only three purposes: necessary water supply; protection of existing structures where there is no feasible alternative; or improvement of fish and wildlife habitat. Such projects also must incorporate the best mitigation measures feasible.

Marine resources are protected to sustain the biological productivity of coastal waters and to maintain healthy populations of all species of marine organisms. Section 30230 requires that marine resources be maintained, enhanced and, where feasible, restored. Uses of the marine environment must provide for the biological productivity of coastal waters and maintain healthy populations of marine organisms. Section 30233 provides that the diking, filling, or dredging of open coastal waters, wetlands, or estuaries may only be permitted for a small number of allowable uses, where there is no less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects.

3.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to environmentally sensitive habitats.

Section 30107.5

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section 30121

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
 - (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
 - (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
 - (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
 - (6) Restoration purposes.
 - (7) Nature study, aquaculture, or similar resource-dependent activities.
- (b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.
- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the CDFW, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California," shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Section 30240

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

3.3 Land Use Plan Policies

This section provides land use policies related to the preservation of environmentally sensitive habitats. The LUP establishes policies calling for the protection of areas adjacent to ESHA through the provision of buffers. Native vegetation buffer areas must be provided around ESHA that are adequate to prevent impacts that would significantly degrade these areas. Development, including required fuel modification activities, shall not be permitted within required buffer areas. The LUP policies require that new development be sited and constructed to avoid impacts, including fuel modification, which could significantly degrade ESHA. Graded and other disturbed areas in or adjacent to ESHA must be landscaped

or revegetated with native, drought tolerant, salt-tolerant, non-invasive drought and fire resistant plants at the completion of grading. Fencing should be limited, in or adjacent to ESHA, and should be sited and designed to allow wildlife to pass through except where needed to mitigate fire risk.

The LUP policies require that new development minimize the removal of natural vegetation. The policies acknowledge that vegetation is sometimes required by the Fire Marshal to be removed, thinned or otherwise modified in order to minimize the risk of hazard for properties located in the Wildland Urban Interface (WUI). A memorandum of understanding (MOU) between the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Department of Forestry, the San Diego Fire Chief's Association and the Fire District's Association of San Diego County establishes guidelines and a cooperative mechanism whereby the USFWS and the CDFW assess, minimize and help account for potential effects to sensitive species and habitats resulting from vegetation abatement activities necessary to reduce wildfire risk.

Policy 3.1

ESHAs are areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. ESHAs are shown on the LUP ESHA Maps. The ESHAs in the County's Coastal Zone are shown in Figure 11. Regardless of whether streams and watercourses are designated as ESHA, the policies and standards in the LCP applicable to ESHA shall apply.

Policy 3.2

Any area mapped as ESHA shall not be deprived of protection as ESHA, as required by the policies and provisions of the LCP, on the basis that habitat has been illegally removed, degraded, or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated.

Policy 3.3

The diking, filling, or dredging of wetlands and watercourses (including but not limited to estuaries, streams, and rivers) may be permitted in accordance with all policies of the LCP, where there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (a) Restoration purposes.
- (b) Nature study or similar resource dependent activities.
- (c) Incidental public service purposes.

Policy 3.4

If a Multi-Species Conservation Plan (MSCP) or other similar habitat plan is prepared in the future that includes lands within the County's Coastal Zone, it shall be submitted to the Coastal Commission for certification as an amendment to the LCP.

Policy 3.5

The LUP ESHA Maps shall be reviewed every ten years and updated to reflect current information, including information on rare, threatened, or endangered species. Areas subject to habitat restoration projects shall also be considered for designation as ESHA. Revisions to the map depicting ESHA shall be treated as LCP amendments and shall be subject to the approval of the CCC.

Policy 3.6

If a site-specific biological study contains substantial evidence that an area previously mapped as ESHA does not contain habitat that meets the definition of ESHA, the County Planning & Development Services Director shall review all available site-specific information to determine if the area in question should no longer be considered ESHA and not subject to the ESHA protection policies of the LUP. If the area is determined to be adjacent to ESHA, LUP ESHA buffer policies shall apply. The County Planning & Development Services Director shall provide recommendations to the County Board of Supervisors as to the ESHA status of the area in question. If the Board of Supervisors finds that an area previously mapped as ESHA does not meet the definition of ESHA, a modification shall be made to the LUP ESHA Maps, as part of an LCP map update and LCP Amendment. If an area is not ESHA or ESHA buffer, LCP policies and standards for protection of ESHA and ESHA buffer shall not apply and development may be allowed (consistent with other LCP requirements) after the ESHA map and LCP has been amended.

Policy 3.7

Development shall include an inventory conducted by a qualified biologist of the plant and animal species present on the project site. If the initial inventory indicates the presence or potential for sensitive species or habitat on the project site, a detailed biological study shall be required. Sensitive species are those listed in any of three categories: federally listed, state listed, and California Native Plant Society (CNPS) categories 1B and 2.

Policy 3.8

Any area not designated on the LUP ESHA Maps that meets the ESHA criteria is ESHA and shall be accorded all the protection provided for ESHA in the LCP. The following areas shall be considered ESHA, unless there is compelling site-specific evidence to the contrary:

- (a) Any habitat area that is rare or especially valuable from a local, regional, or statewide basis
- (b) Areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law.
- (c) Areas that contribute to the viability of species designated as Fully Protected or Species of Special Concern under State law or regulations.

- (d) Areas that contribute to the viability of plant species for which there is compelling evidence of rarity, for example, those designated by the California Native Plant Society as 1B (Rare or endangered in California and elsewhere), or as 2B (rare, threatened or endangered in California but more common elsewhere).

Policy 3.9

ESHA shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

Policy 3.10

Wetlands shall be defined and delineated consistent with the definitions of the Coastal Act and the Coastal Commission Regulations, as applicable, and shall include, but not be limited to, lands within the coastal zone which may be covered periodically or permanently with shallow water and include freshwater, brackish and saltwater marshes, swamps, bogs, and fens shall be designated as wetland. Any unmapped areas that meet these criteria are wetlands and shall be accorded all of the protections provided for wetlands in the LCP.

Wetland shall be further defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands.

Policy 3.11

Applications for new development within, or adjacent to wetlands shall include evidence of the preliminary approval of the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and other resource management agencies, as applicable.

Policy 3.12

The biological productivity and the quality of wetlands shall be protected and, where feasible, restored.

Policy 3.13

Public, non-motorized trails are considered resource dependent uses. Non-motorized trails located within or adjacent to ESHA shall be sited to minimize impacts to ESHA to the maximum extent feasible and in general should be located around the periphery of sensitive habitat areas. Measures, including but not limited to signage, placement of boardwalks, and limited fencing shall be implemented as necessary to protect ESHA.

Policy 3.14

If the application of the policies and standards contained in this LCP regarding use of property designated as ESHA or ESHA buffer, including the restriction of ESHA to only resource-dependent use, would likely constitute a taking of private property without just compensation, then a use that is not consistent with the ESHA provisions of the LCP shall be allowed on the property, provided such use is consistent with all other applicable policies of the LCP, the approved project is the alternative that would result in the fewest or least significant impacts, and it is the minimum amount of development necessary to avoid a taking of private property without just compensation. In such a case, the development shall demonstrate the extent of ESHA on the property and include mitigation, for unavoidable impacts to ESHA or ESHA buffers from the removal, conversion, or modification of natural habitat for new development, including required fuel modification and brush clearance. On-site mitigation will be prioritized over off-site mitigation. However, mitigation shall not substitute for implementation of a feasible project alternative that would avoid adverse impacts to ESHA.

Policy 3.15

New development shall be sited and designed to avoid impacts to ESHA. For development permitted pursuant to Policy 3.14, if there is no feasible alternative that can eliminate all impacts, then the alternative that would result in the fewest or least significant impacts shall be selected. Impacts to ESHA shall be minimized, and impacts that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures may only be approved when the applicant demonstrates it is not feasible to fully mitigate impacts on-site or where off-site mitigation is more protective. Mitigation shall not substitute for implementation of the project alternative that would avoid impacts to ESHA. Mitigation for impacts to ESHA shall be provided at a 3:1 ratio.

Policy 3.16

Mitigation measures for impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives, including habitat restoration and/or enhancement shall be monitored for a period of no less than five, and no more than ten years following completion of the mitigation measures. Specific mitigation objectives and performance standards shall be designed to measure the success of the restoration and/or enhancement, and compared against an appropriate reference site, where feasible. Adaptive management techniques shall be implemented if necessary. Monitoring reports shall be provided to the County annually and at the conclusion of the monitoring period that document the success or failure of the mitigation. If performance standards are not met by the end of five years, the applicant may request that the monitoring period be extended until the standards are met. However, if at any time after five years the applicant concludes that performance standards cannot be met, or if ten years have elapsed and performance standards have still not been met, the applicant shall submit an amendment proposing alternative mitigation measures.

Policy 3.17

ESHA shall be protected and, where feasible, enhanced. Where pedestrian access through ESHA is permitted, well-defined footpaths or other means of directing use and minimizing adverse impacts shall be used. Nesting and roosting areas for sensitive birds such as coastal California gnatcatcher, least Bell's vireo, and Belding's savannah sparrow, shall be protected by means, which may include, but are not limited to, fencing, signage, or seasonal access restrictions.

Policy 3.18

Mosquito abatement within or adjacent to ESHA shall be limited to the implementation of the minimum measures necessary to protect human health, and shall minimize adverse impacts to ESHA.

Policy 3.19

Wildfire burn areas shall be allowed to revegetate naturally, except where re-seeding is necessary to minimize risks to public health or safety. Where necessary, reseeding shall utilize a mix of native plant seeds appropriate for the site and collected in a similar habitat within the same geographic region, where feasible. Wildfire burn areas that were previously subject to fuel modification or brush clearance for existing structures, pursuant to the requirements of the Fire Authority Having Jurisdiction, may be revegetated to pre-fire conditions using appropriate native propagules.

Policy 3.20

Interpretive signage may be placed in or adjacent to ESHA to provide information to the public about the value and need to protect sensitive natural resources.

Policy 3.21

Where the required initial site inventory indicates the presence or potential for wetland species or indicators, the County shall require the submittal of a detailed biological study of the site, with the addition of a delineation of all wetland areas on the project site. Wetland delineations shall be based on the definitions contained in Section 13577(b) of Title 14 of the California Code of Regulations.

Policy 3.22

Limit development in steep hillside areas to minimize potential impacts on native plant and animal species and protect native habitat.

Policy 3.23

Limit redevelopment and development in environmentally sensitive areas, such as upland slopes and watershed areas draining to watercourses and water bodies downstream, to activities supporting the preservation of these watercourses and water bodies.

Policy 3.24

New development adjacent to parklands or conservation areas, where the purpose of the park is to protect the natural environment and ESHA, shall be sited and designed to minimize impacts to habitat and recreational opportunities, to the maximum extent feasible. Natural vegetation buffer areas shall be provided around parklands. Buffers shall be of a sufficient size to prevent impacts to parkland resources, but in no case shall they be less than 50 feet in width.

Policy 3.25

New development, including, but not limited to, vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted in ESHA, ESHA buffer areas, or park buffer areas, unless ordered by the Fire Authority, and in consultation with the Resource Agencies (CDFW, USFWS, and CCC). Habitat restoration and invasive plant eradication may be permitted within required buffer areas if designed to protect and enhance habitat values.

Policy 3.26

Required buffer areas shall extend from the outer edge of the tree or shrub canopy of ESHA.

Policy 3.27

Modifications to required development standards that are not related to ESHA protection (street setbacks, height limits, etc.) shall be permitted where necessary to avoid or minimize impacts to ESHA.

Policy 3.28

Protection of ESHA and public access shall take priority over other development standards and where there is any conflict between general development standards and ESHA or public access protection, the standards that are most protective of ESHA and public access shall have precedence, except where health and safety codes prevail.

Policy 3.29

Permitted development located within or adjacent to ESHA or parklands shall include open space or conservation restrictions or easements over ESHA, ESHA buffers, or parkland buffers in order to protect resources.

Policy 3.30

Channelization or other substantial alterations of streams shall be prohibited except for: (1) necessary water supply projects where no feasible alternative exists; (2) flood protection for existing development where there is no other feasible alternative, or (3) the improvement of fish and wildlife habitat. Any channelization or stream alteration permitted for one of these three purposes shall avoid and minimize

impacts to coastal resources, including the depletion of groundwater, and shall mitigate all unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over "hard" solutions such as concrete or riprap channels. Limit channelization of Escondido Creek, unless necessary to protect existing development or for flood control. Allow ongoing maintenance and clearing as necessary to protect existing structures in the flood plain, and incorporating any necessary mitigation measures to maintain Escondido Creek in a manner that protects flood capacity while enhancing open space and habitat value over the long term.

Policy 3.31

Restrict development and land alteration that drains into a coastal lagoon or wetland area to protect important water quality and biological resources.

Policy 3.32

Identification of wetland acreage through a wetland delineation report that identifies onsite wetlands consistent with the Coastal Act's wetland definition (CCR Section 13577b) shall precede any consideration of use or development on sites where wetlands are present or suspected. With the exception of development for the primary purpose of the improvement of wetland resource value, all public and private use and development proposals which would intrude into, reduce the area of, or reduce the resource value of wetlands shall be subject to alternatives and mitigation analyses, and shall be limited to those uses listed in Policy 3.35. Practicable project and site development alternatives which involve no wetland intrusion or impact shall be preferred over alternatives which involve intrusion or impact. Wetland mitigation, replacement or compensation shall not be used to offset impacts or intrusion avoidable through other practicable project or site development alternatives.

Policy 3.33

Where wetland fill or development impacts are permitted in wetlands in accordance with the Coastal Act and any applicable LCP policies, mitigation measures shall include, at a minimum, creation or substantial restoration of wetlands of the same type lost. Adverse impacts will be mitigated at a ratio of 4:1 for all types of wetland, and 3:1 for non-wetland riparian areas. Replacement of wetlands on-site or adjacent to the project site, within the same watershed, shall be given preference over replacement off-site or within a different watershed. Areas subjected to temporary wetland impacts shall be restored to the pre-project condition at a 1:1 ratio. Temporary impacts are disturbances that last less than 12 months and do not result in the physical disruption of the ground surface, death of significant vegetation within the development footprint, or adverse alterations to wetland hydrology.

Policy 3.34

Provide a buffer of at least 100 feet in width from the upland edge of wetlands and at least 50-feet in width from the upland edge of riparian habitat. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width). Buffers

should take into account and adapt for rises in sea level. Under this policy, the CDFW, USFWS, and USACE shall be consulted regarding such buffer determinations and in some cases, the buffer may be required to be greater than 100 feet. Uses and development within buffer areas shall be limited to minor passive recreational uses, with fencing, desiltation or erosion control facilities, or other improvements deemed necessary to protect the habitat, to be located in the upper (upland) half of the buffer area; however, water quality features required to support new development shall not be constructed in wetland buffers. All wetlands and buffers identified and resulting from development and use approval shall be permanently conserved or protected through the application of an open space easement or other suitable legal instrument. All development activities, such as grading, buildings and other improvements in, adjacent to, or draining directly to a wetland must be located and built so they do not contribute to increased sediment loading of the wetland, disturbance of its habitat values, or impairment of its functional capacity.

Policy 3.35

Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat (not fuel modification zones) and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect. All buffers around (non-wetland) ESHA shall be a minimum of 100 feet in width. All wetland buffers shall be a minimum of 100-feet in width or a minimum of 50 feet in width around riparian areas. A smaller width may be approved by Planning & Development Services and the Fire Marshal in consultation with the CDFW, USFWS, and CCC when conditions of the site as demonstrated in a site specific biological survey, the nature of the proposed development, etc. show that a smaller buffer would provide adequate protection. In such cases, the CDFW must be consulted and agree that a reduced buffer is appropriate and the County, or Coastal Commission, must find that the development could not be feasibly constructed without a reduced buffer. However, in no case shall the buffer be less than 50 feet, excluding fuel modification zones. Fuel modification zones shall occur outside, not within ESHA buffers.

Policy 3.36

When fuel modification is necessary, new development shall be sited so that fuel management protects structures and avoids impacts to native vegetation and sensitive habitats. Fuel modification should occur as determined necessary by the Fire Authority Having Jurisdiction (FAHJ) and should preserve sensitive habitats and native vegetation to the maximum extent feasible.

Policy 3.37

Cut and fill slopes and other areas disturbed by construction activities (including areas disturbed by fuel modification or brush clearance) shall be landscaped or revegetated at the completion of grading. Landscape plans for development activities shall provide that:

- Plantings shall be native, or non-invasive, drought-tolerant, and fire resistant plant species, and consistent with existing natural vegetation and natural habitats on the site, except as noted below.
- Invasive plant species that tend to supplant native species and natural habitats shall be prohibited.
- Non-invasive ornamental plants and lawn may be permitted in combination with native, drought-tolerant and fire resistant species only within the irrigated zone(s) required for fuel modification that are nearest to the approved residential structures.
- Landscaping or revegetation shall provide 90 percent coverage within five years, or that percentage of ground cover demonstrated locally appropriate for a healthy stand of the particular native vegetation type chosen for restoration. Landscaping or revegetation that is located within any required fuel modification thinning zone shall provide 60 percent coverage within five years.
- Any landscaping or revegetation shall be monitored for a period of at least five, and no more than ten years following the completion of planting. Performance criteria shall be designed to measure the success of the plantings. Adaptive management techniques shall be implemented if necessary. If performance standards are not met by the end of five years, the applicant may request that the monitoring period be extended up to an additional five years until the standards are met. However, if at any time after five years the applicant concludes that performance standards cannot be met, or if ten years have elapsed and performance standards have still not been met, the applicant shall submit an amendment proposing alternative mitigation measures.
- All landscaping must comply with state-mandated water restrictions.

Policy 3.38

New development shall be sited and designed to preserve oak, sycamore, alder, willow, toyon, or other native trees that are not otherwise protected as ESHA. Removal of native trees shall be prohibited except where no other feasible alternative exists. Structures, including roads or driveways, shall be sited to prevent any encroachment into the root zone and to provide an adequate buffer outside of the root zone of native trees. The buffer may extend beyond the tree canopy of an individual tree as necessary to allow for future growth.

Policy 3.39

New development on sites containing native trees shall include a tree protection plan.

Policy 3.40

Where the removal of native trees cannot be avoided through the implementation of project alternatives or where development encroachments into the protected zone of native trees may result in the loss or worsened health of the trees, mitigation measures shall include, at a minimum, the planting of replacement trees on-site with trees of comparable size, if suitable area exists on the project site, at a

ratio of 1:1 for every tree removed. Where onsite mitigation is not feasible, off-site mitigation shall be provided through planting replacement trees. The number of replacement trees allowed to be planted within a fire hazard severity zone shall be approved by the Fire Marshal. Proper spacing of tree trunks and canopies will be maintained in accordance with the Fire Code for trees in this zone. Any new or replacement tree planted in this zone shall be fire resistive and on the Planning and Fire Department approved planting list.

Policy 3.41

Impacts to ESHA will be prohibited except where no other feasible alternative exists. Where ESHA impacts are permitted in accordance with the Coastal Act and any applicable LCP policies, adverse impacts will be mitigated at the following ratios:

- 1:1 for native tree replacement (e.g. oaks, walnut, sycamore), for a tree of comparable size.
- 4:1 for wetlands.
- 3:1 for riparian habitats.
- 3:1 for other habitats that support state or federal rare, threatened, or endangered species, species of special concern or CNPS 1b or 2 listed plants.
- 2:1 for coastal sage scrub not occupied by listed species.

Areas subjected to temporary upland habitat impacts shall be restored to the pre-project condition at a 1:1 ratio. Temporary impacts are disturbances that last less than 12 months, and do not result in the physical disruption of the ground surface, death of significant vegetation within the development footprint, or adverse alterations to wetland hydrology.

Policy 3.42

For development in locations known, or determined by environmental review, to potentially have breeding or nesting sensitive or migratory bird species, or other sensitive amphibian, reptilian or mammalian species, two weeks prior to any scheduled development, a qualified biological monitor shall conduct a preconstruction survey of the site and within 600 feet of the project site. Sensitive bird species are those species designated “threatened” or “endangered” by state or federal agencies, California Species of Special Concern, California Fully Protected Species, raptors, and large wading birds. In addition, surveys must be conducted every two weeks for sensitive nesting birds during the breeding season. If nesting sensitive birds are detected at any time during the breeding season, the California Department of Fish and Wildlife shall be notified and an appropriate disturbance set-back will be determined and imposed until the young-of-the-year are no longer reliant upon the nest. The set-back or buffer shall be no less than 100 feet.

Policy 3.43

The County should coordinate with the CDFW and USFWS, NMFS, and other resource management agencies, as applicable, in the review of development applications in order to ensure that impacts to ESHA and marine resources, including rare, threatened, or endangered species, are avoided and minimized.

Policy 3.44

The County shall encourage the removal of invasive species to restore natural drainage systems, habitats, and natural hydrologic regimes of watercourses.

Policy 3.45

The use of insecticides, herbicides, rodenticides or any toxic chemical substance which has the potential to significantly degrade ESHA, shall be prohibited within and adjacent to ESHAs, except where necessary to protect or enhance the habitat itself, such as eradication of invasive plant species, or habitat restoration or as required for fuel modification. Application of such chemical substances shall not take place during the winter season or when rain is predicted within a week of application, except when invasive pests are detected.

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4 Water Resources

4.1 Introduction

The County economy and quality of life is dependent on a safe and reliable water supply and sustainment of the County's natural environment. The northern portion of the County's Coastal Zone is part of the Carlsbad Watershed, and the southern portion is part of the San Dieguito River Watershed (Figure 12, Watersheds). Though the County's Coastal Zone does not contain any marine resources, Escondido Creek and La Orilla Creek traverse the County's Coastal Zone and feed into San Elijo Lagoon, while the San Dieguito River runs just south of the County's Coastal Zone. San Elijo Lagoon is a critical regional resource that provides freshwater and estuarine habitats for numerous plant and animal species. Urbanization in and around the Carlsbad and San Dieguito River watersheds present challenges to the water and habitat qualities of San Elijo Lagoon due to sediment loading from upstream sources and urban runoff. Total phosphorus, nitrogen, and fecal coliform are the main pollutants of concern for the San Dieguito River Watershed, and the same is true for the Carlsbad Watershed with the addition of total suspended solids. Management of upstream development and activities that contribute to urban runoff are of key concern for the ongoing restoration projects in San Elijo Lagoon, which are aimed at improving water and habitat qualities.

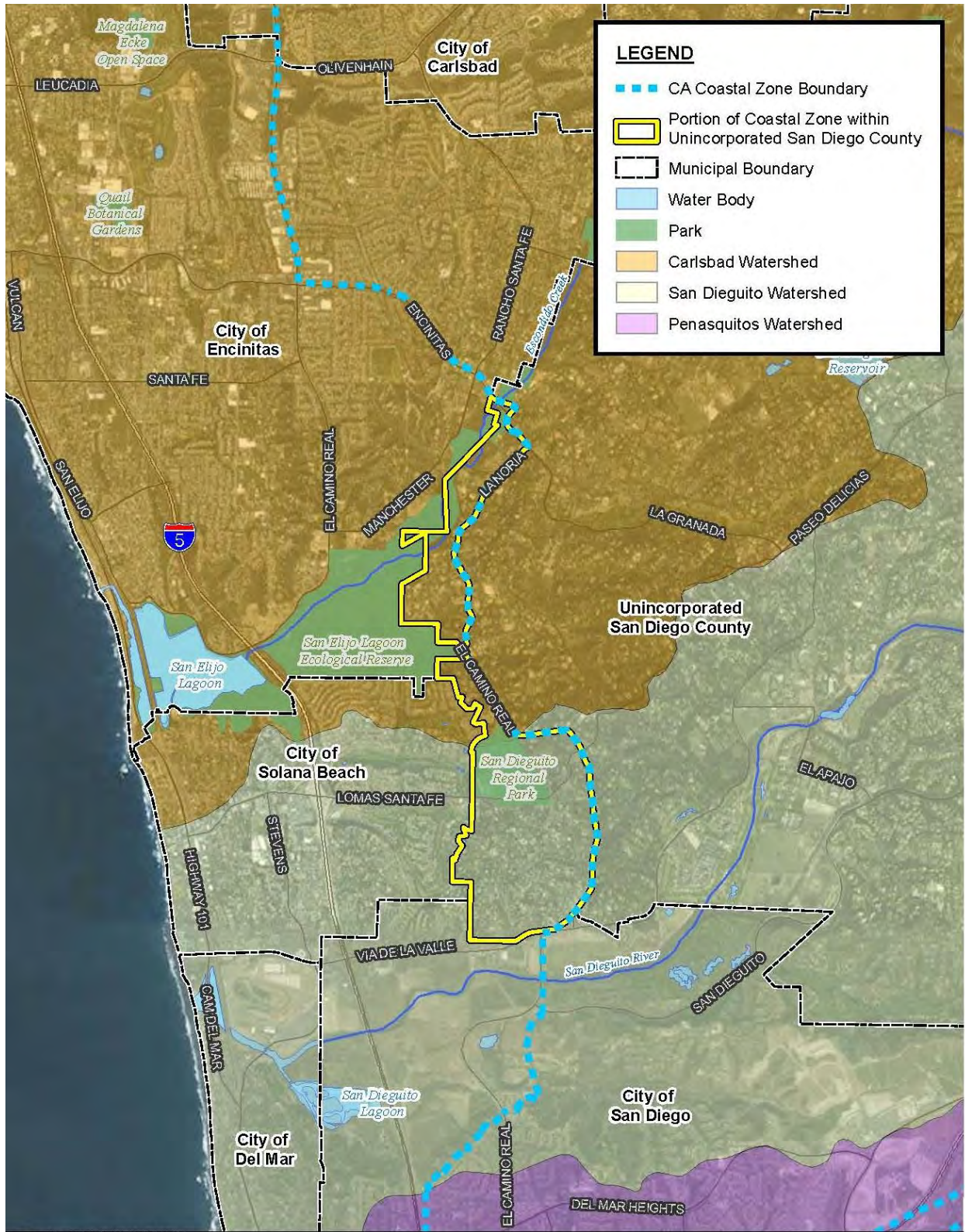
4.1.1 Coastal Wetlands

San Elijo Lagoon Ecological Reserve contains a large wetland habitat area and is adjacent to the northern portion of the County's Coastal Zone. San Elijo Lagoon is approximately 1,000 acres and includes the 590-acre San Elijo Ecological Reserve managed by the CDFW and the County Department of Parks and Recreation (DPR). San Elijo Lagoon has been recognized as a national and state resource due to the presence of valuable habitat that is of biological significance for resident and migratory waterbirds along the Pacific Flyway. Currently, most of the lagoon habitat in the eastern basin consists of brackish/freshwater marsh, non-tidal flats, and open water.

San Dieguito Lagoon is southwest of the County's Coastal Zone, and though the wetland may be affected by drainage from the upland habitat within the County's Coastal Zone, there are no direct riverine or creek connections between the County's Coastal Zone and San Dieguito Lagoon. Wetland policies for the County Coastal Zone are identified in Section 3.3, above.

4.1.2 Water Supply

The County's Coastal Zone is primarily within the Santa Fe Irrigation District. A few areas in the northern portion of the County's Coastal Zone, adjacent to San Elijo Lagoon, fall within the Olivenhain Municipal Water District. Water supply provided by the Santa Fe Irrigation District consists of local water from Lake Hodges and imported water purchased from the San Diego County Water Authority (SDCWA). Water supply provided by the Olivenhain Municipal Water District is fully sourced from the SDCWA. The SDCWA in turn purchases its water from the Metropolitan Water District of Southern California (MWD), which imports water from the Colorado River and the Sacramento-San Joaquin Bay-Delta.



Source: SanGIS 2016; NAIP 2014.

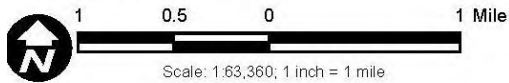


Figure 12
Watersheds

4.1.3 Non-point Source Pollution

The water quality of San Elijo Lagoon, and ultimately ocean water, are impacted by urban runoff from human activities within the County's Coastal Zone and surrounding communities. Water quality protection has long been a priority at all levels of government. California's Non-point Source Pollution Control Program (CA NPS Program) addresses federal requirements under both the Clean Water Act and the Coastal Zone Management Act (Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990), by implementing California's Coastal Nonpoint Pollution Control Program on a statewide basis.

The lead State agencies responsible for implementing the CA NPS Program are the SWRCB and the San Diego Regional Water Quality Control Board (RWQCB) (designated as the lead water quality agency) and the California Coastal Commission (designated as the lead coastal zone management agency). The San Diego RWQCB adopted an amended Municipal Stormwater Permit (National Pollution Discharge Elimination System (NPDES) Permit Order No. R9-2013-0001 as amended by Order No. R9-2015-0001 and R9-2015-0100, also called the San Diego RWQCB MS4 permit) cover the co-permittees of San Diego, Orange, and Riverside Counties. Section 67.801 et seq. of the County's Watershed Protection Ordinance (WPO) provides the County with the legal authority to implement the SDRWQCB MS4 permit.

4.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to water resources.

Section 30230

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less

environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
 - (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
 - (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
 - (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
 - (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
 - (6) Restoration purposes.
 - (7) Nature study, aquaculture, or similar resource dependent activities. (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.
- (b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.
- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Section 30236

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

4.3 Land Use Policies

This section provides land use policies intended to protect water resources.

Policy 4.1

Development projects shall be required to avoid impacts to the water quality in local reservoirs, groundwater resources, recharge areas, watersheds, and other local water sources.

Policy 4.2

New or expanded uses in floodways shall be limited to agricultural, recreational, and other such low-intensity uses and those that do not result in any increase in flood levels or substantially interfere with flood flows during the occurrence of the base flood discharge, do not include habitable structures, and do not substantially harm, and fully offset any such harm, to the environmental values of the floodway area. This policy does not apply to minor renovation projects, improvements required to remedy an existing flooding problem, or public infrastructure when no feasible alternative exists.

Policy 4.3

The use of natural channels for County flood control facilities shall be required except where necessary to protect existing structures from a current flooding problem and where natural channel use is deemed infeasible. The alternative must achieve the same level of biological and other environmental protection, such as water quality, hydrology, and public safety.

Policy 4.4

Address runoff management early in the site design planning and alternatives analysis for all development, integrating existing site characteristics that affect runoff (such as topography, drainage patterns, vegetation, soil conditions, natural hydrologic features, and infiltration conditions) in the design of strategies that minimize post-development changes in the runoff flow regime, control pollutant sources, and, where necessary, remove pollutants.

Policy 4.5

Give precedence to a Low Impact Development (LID) approach to stormwater management in all development. LID integrates preventive Site Design strategies with small-scale, distributed Best Management Practices (BMPs) to replicate the site's pre-development hydrologic balance through

infiltration, evapotranspiration, harvesting for later on-site use, detention, or retention of stormwater close to the source.

Policy 4.6

Plan, site, and design development to protect and, where feasible, restore hydrologic features such as stream corridors, drainage swales, topographical depressions, groundwater recharge areas, floodplains, and wetlands.

Policy 4.7

Plan, site, and design development to preserve or enhance non-invasive vegetation to achieve water quality benefits such as transpiration, interception of rainfall, pollutant uptake, shading of waterways to maintain water temperature, and erosion control.

Policy 4.8

Plan, site, and design development to maintain or enhance on-site infiltration of runoff, where appropriate and feasible, to reduce runoff and recharge groundwater.

Policy 4.9

Plan, site, and design development to minimize the installation of impervious surfaces, especially impervious areas directly connected to the storm drain system, and, where feasible, increase the area of pervious surfaces in re-development, to reduce runoff.

Policy 4.10

Use Source Control BMPs, which can be structural features or operational actions, in all development to minimize the transport of pollutants in runoff from the development.

Policy 4.11

In areas in or adjacent to an Environmentally Sensitive Habitat Area (ESHA), plan, site, and design development to protect the ESHA from any significant disruption of habitat values resulting from the discharge of stormwater or dry weather runoff flows.

Policy 4.12

Avoid construction of new stormwater outfalls and direct stormwater to existing facilities with appropriate treatment and filtration, where feasible. Where new outfalls cannot be avoided, plan, site, and design outfalls to minimize adverse impacts to coastal resources from outfall discharges, including consolidation of existing and new outfalls where appropriate.

Policy 4.13

Implement appropriate protocols to manage BMPs (including ongoing operation, maintenance, inspection, and training) in all development, to protect coastal water resources for the life of the development.

Policy 4.14

Minimize water quality impacts during construction by minimizing erosion and sedimentation, minimizing the discharge of other pollutants resulting from construction activities, and minimizing land disturbance and soil compaction.

Policy 4.15

Development within the County's Coastal Zone shall consider and implement the following criteria, as applicable, in respect to watershed impacts:

- (a) Mitigate any unavoidable losses of wetlands, including its habitat functions and values;
- (b) 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;
- (c) 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;
- (d) Implement efficient irrigation systems and the use of native plant species and non-invasive drought/tolerant/low water use plants in landscaping;
- (e) Maximize natural drainage patterns and retention/use of natural vegetation and pervious surfaces to maximize metered stormwater absorption, filtration, and/or infiltration. This provision shall not apply where documentation has been provided that demonstrates that infiltration practices will cause septic system failures, compromise structure foundations or result in moisture damage, and/or other problems;
- (f) Development with high potential to contaminate groundwater shall implement best management practices and measures to protect water supply sources;
- (g) The use of recycled water and gray water systems shall be promoted, where feasible. The use of recycled water shall be restricted in instances when it increases salt loading in reservoirs;
- (h) Development shall be required to provide necessary on- and off-site improvement to stormwater runoff and drainage facilities.

Policy 4.16

Source Control BMPs must be implemented for all development projects, where applicable and feasible. The Source Control BMPs may include, but is not limited to:

- (a) Prevention of illicit discharges into the stormwater conveyance system;
- (b) Stenciling and marking of all storm drains in accordance with the BMP Design Manual;
- (c) Protection of all outdoor material storage areas from rainfall, run-on, runoff; and wind dispersal;
- (d) Protection of materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal;
- (e) Protection of trash storage areas from rainfall, run-on, runoff, and wind dispersal;

(f) Implementation of additional BMPs as the County determines necessary to minimize pollutant generation.

Policy 4.17

Minimize water quality impacts during construction by minimizing erosion and sedimentation, minimizing the discharge of other pollutants resulting from construction activities, and minimizing land disturbance and soil compaction. New development shall include construction phase erosion control and polluted runoff control plans. These plans shall specify BMPs that will be implemented to minimize erosion and sedimentation, provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by sediment and construction chemicals and materials.

Policy 4.18

At a minimum, the County shall apply regulations approved by the RWQCB intended to preserve the natural drainage and the hydrologic cycle. The County shall impose, in addition to the minimum requirements of the RWQCB, any conditions on development needed to minimize land disturbance, encourage infiltration, and minimize the introduction of pollutants into coastal waters in accordance with the Coastal Act.

Policy 4.19

Development involving onsite wastewater discharges shall be consistent with the LCP, as well as the rules and regulations of the San Diego RWQCB, including Waste Discharge Requirements, revised waivers, and other regulations that apply.

Policy 4.20

All new development and redevelopment, public and private, shall meet or exceed the storm water standards of the County of San Diego through the WPO, RWQCB, and the State of California, with regard to storm water runoff and other polluted runoff.

Policy 4.21

New development and redevelopment shall not result in the degradation of the water quality of groundwater basins or coastal surface waters including the ocean, coastal streams, or wetlands. Urban runoff pollutants shall not be discharged or deposited such that they adversely impact groundwater, the ocean, coastal streams, or wetlands, and shall meet or exceed the current RWQCB Municipal Stormwater Permit.

Policy 4.22

At a minimum, all new development and redevelopment will implement the site characterization and proposed BMP effectiveness assessment per the County of San Diego BMP Design Manual.

Policy 4.23

At a minimum, all new development and redevelopment will implement Source Control BMPs per the County of San Diego BMP Design Manual.

Policy 4.24

The County shall pursue opportunities to actively participate in watershed level planning and management efforts directed towards reducing storm water and urban runoff impacts to water quality and related resources, including restoration efforts and regional mitigation, monitoring and public education programs. Such efforts will involve coordination with other local governments, applicable resource agencies and stakeholders in the surrounding areas. The County shall participate in the respective watershed groups as defined by the RWQCB to assist neighboring jurisdictions in developing and implementing the Watershed Urban Runoff Management Program (WURMP). The WURMP shall be amended from time to time as required by the RWQCB.

Policy 4.25

The County will support and participate in watershed based planning efforts with the adjacent cities of Encinitas, Solana Beach, and San Diego, and the RWQCB. Watershed planning efforts shall be facilitated by helping to:

- Pursue funding to support the development of watershed plans;
- Identify priority watersheds where there are known water quality problems or where development pressures are greatest;
- Assess land uses in the priority areas that degrade coastal water quality;
- Ensure full public participation in the plan’s development.

Policy 4.26

In planning, siting, designing, constructing, and maintaining grounds, landscapes, and structures owned and managed by the County, site objectives should include management and maintenance practices that protect and enhance natural ecosystems. County grounds designers, planners, managers, crews, and their contractors should give priority to:

- (a) Practicing the principles of Integrated Pest Management including the reduced use of pesticides and rodenticides;
- (b) Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments;
- (c) Designing new and renovating existing landscaped areas to suit the site conditions, protect water quality, and support sustainable maintenance.
- (d) Using drought-tolerant native and non-invasive plant species.

(e) Incorporating low impact development design techniques.

Policy 4.27

When development requires a grading permit or local Storm Water Pollution Prevention Plan (SWPPP) landscaping and re-vegetation of graded or disturbed areas shall be required. Any landscaping that is required to control erosion shall use native or drought-tolerant noninvasive plants to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation. Where irrigation is necessary, efficient irrigation practices shall be required, such as drip irrigation. Landscaping maintenance and irrigation shall be designed and built to avoid or minimize dry weather runoff and shall utilize micro-spray and drip irrigation technology.

Policy 4.28

New development shall include post-development phase drainage and polluted runoff control plans. These plans shall specify site design, source control and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include the monitoring and maintenance plans for these BMPs.

Policy 4.29

Development must be designed to avoid then minimize to the maximum extent feasible, the introduction of pollutants of concern into coastal waters. To meet the requirement to minimize “pollutants of concern,” new development shall incorporate a BMP or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible.

Policy 4.30

Ensure that sewer trunk extensions, treatment plants, ocean outfalls, and development which may be served by these facilities, will not result in any adverse impact upon the environment.

Policy 4.31

Encourage optimum water and sewage reclamation, water conservation, recharging of underground waters, and the use of natural channels for transporting water.

Policy 4.32

Taking into account current and future sea levels, comply with setbacks and buffers from all watercourses to protect property, improve water quality, and enhance the aesthetic beauty of the riparian environment.

Policy 4.33

Natural conditions of drainage should be preserved and any changes to the natural contours shall be minimized and shall not cause damage to nearby properties.

Policy 4.34

All grading plans shall include preparation for an installation of landscaping and shall comply with the County's Landscape and Water Efficient Design Ordinance requirement to utilize drought tolerant landscaping.

Policy 4.35

Grading permits shall be issued at the same time as building permits to minimize erosion.

Policy 4.36

Requirements for all development projects:

- 1) Follow as applicable the approach and criteria described in the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities at a minimum.
- 2) Submit a Standard Stormwater Quality Management Plan (SWQMP), with an application for a County permit or other County approval, identifying the measures that will be used for stormwater and non-stormwater management for the project.
- 3) General Requirements. BMPs shall be designed, constructed and maintained as follows:
 - (A) Onsite BMPs must be located so as to remove pollutants from runoff prior to its discharge to any receiving waters, and as close to the source as possible;
 - (B) Structural BMPs may not be constructed in receiving waters; and
 - (C) Onsite BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors (e.g., mosquitos, rodents, or flies).

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5 Agriculture

5.1 Introduction

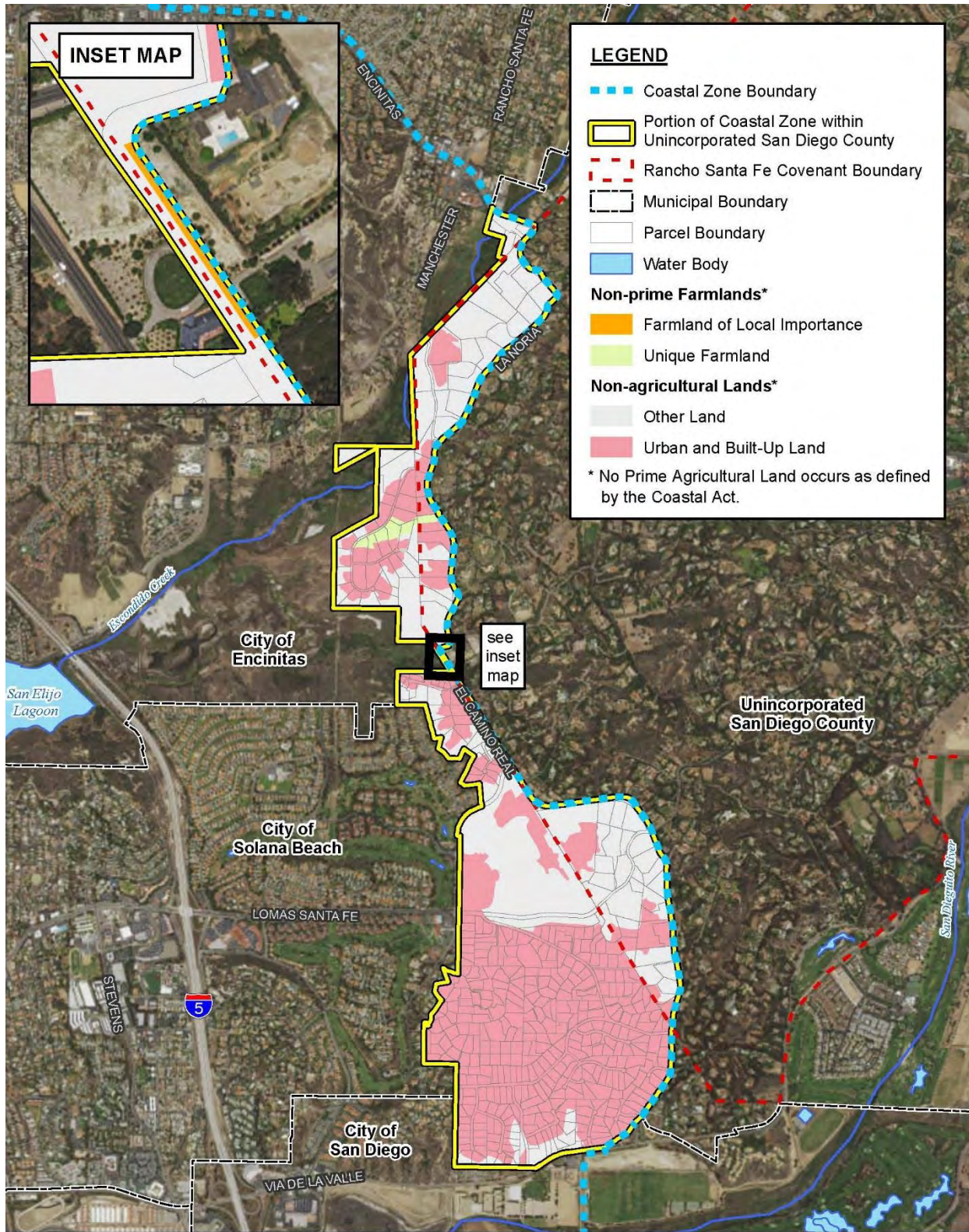
The County's Coastal Zone is largely built out, and current agricultural uses are accessory to residential uses, e.g., orchards used for ornamental landscaping. Commercial agricultural activities as defined in County of San Diego Zoning Ordinance 1100 are not occurring within the County's Coastal Zone. Existing agricultural land uses within the County's Coastal Zone are not categorized as Prime Agricultural Land, as defined by Section 30113 of the Coastal Act (see Section 5.2, below). Therefore, policies related to Prime Agricultural Land are not incorporated in the LUP. However, the Coastal Act mandates that all other lands suitable for agricultural use shall not be converted to nonagricultural uses unless continued or renewed agricultural use is not feasible, or such conversion would preserve Prime Agricultural Land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

5.1.1 California Department of Conservation

According to the California Department of Conservation's Farmland Mapping and Monitoring Program, there is no Prime Farmland in the County's Coastal Zone, as mapped in 2012. Similarly, Farmland of Statewide Importance, defined by the California Department of Conservation as "similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture," is not located within the County's Coastal Zone. Non-prime farmland categories that do occur within the County's Coastal Zone include Unique Farmland and Farmland of Local Importance, as defined by the California Department of Conservation and shown in Figure 13, Agricultural Land. Unique Farmland is defined by the California Department of Conservation as "farmland of lesser quality soils used for the production of a state's leading agricultural crops." A small patch of Unique Farmland is located within the gated Stonebridge neighborhood in the northern portion of the County's Coastal Zone. This designation appears to consist of an orchard that may be used for ornamental landscaping. A narrow strip of Farmland of Local Importance is found in the middle of the County's Coastal Zone, just east of El Camino Real and appears to be an isolated narrow strip of land along the eastern edge of a gated residential property. This designation is not currently used for agricultural purposes.

5.1.2 County of San Diego Use Regulations

The County of San Diego Zoning Ordinance specifies uses permitted, lot size, density, height, building types, animal regulations, and other requirements. Use Regulations and associated acreage within the County's Coastal Zone that accommodate agricultural uses are identified in Table 3 below. The use types listed below make up the majority of the County's Coastal Zone acreage.



Source: SanGIS 2016; NAIP 2014; CA Department of Conservation CIFF 2012.

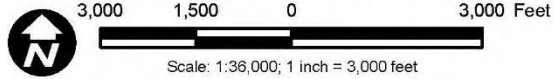


Figure 13
Agricultural Land

Table 3. Summary of Use Regulations Addressing Agriculture in the County’s Coastal Zone

Use Regulation	Description	Estimated Acreage
A70 – Limited Agricultural	Primarily for agricultural crop production, with a limited number of small farm animals. Agricultural products raised on the premises may be processed. This designation is intended to protect moderate to high quality agricultural land. Permitted uses include family residential, civic uses (essential services and fire protection services), and agricultural uses (horticulture, tree crops, row and field crops, packing and processing: limited). Other uses may be permitted subject to minor or major use permit.	52
RS – Single Family Residential	Family residential use is the principal and dominant use with other civic uses (essential services and fire protection), as well as agricultural uses (horticulture cultivation, tree crops, row and field crops) also permitted. Other uses may be permitted subject to minor or major use permit.	489
RR - Rural Residential	Residential areas where agricultural use compatible with a dominant, permanent residential use is desired. Applied to areas where urban levels of service are not available and where large lots are desired. In addition to family residential, other civic uses (essential services and fire protection), as well as agricultural uses (horticulture cultivation, tree crops, row and field crops) are permitted. Other uses may be permitted subject to minor or major use permit.	340
RV – Variable Family Residential	Family residential use is the principal and dominant use with other civic uses (essential services and fire protection), as well as agricultural uses (horticulture cultivation, tree crops, row and field crops) also permitted. Other uses may be permitted subject to minor or major use permit.	10
S80 – Open Space	Land generally unsuitable for intensive development that is applied to hazard or resource areas, public lands, recreation areas, or lands subject to open space easement or similar restrictions. Allowable uses include those that have a minimal impact on the natural environment, or those compatible with hazards, resources, or other restrictions. All development requires site plan review. In addition to family residential, other civic uses (essential services and fire protection), as well as agricultural uses (horticulture cultivation, tree crops, row and field crops) are permitted. Other uses may be permitted subject to minor or major use permit.	161
Total Estimated Acreage		1,052

Note: Acreage determined from GIS mapping estimates and is for planning purposes only.

Although most County Use Regulations allows for agricultural uses within the County’s Coastal Zone, there are no existing ongoing, large-scale agricultural operations, so policies addressing these types of uses are not discussed in Section 5.3 of this LUP. No policies regarding coastal-specific development and activities, which are not related to the unique uses and location of the County’s Coastal Zone, are included in this LUP. Policies presented in Section 5.3 are intended to allow for the continued existence of secondary agriculture, such as orchards, within the areas of the Coastal Zone designated as A70 – Limited Agriculture,

RS – Single Family Residential, RR - Rural Residential, RV – Variable Family Residential, and S80 – Open Space.

5.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to agriculture.

Section 30113

“Prime agricultural land” means those lands defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code (known as the California Land Conservation Act of 1965 or as the *Williamson Act*):

- (1) *All land that qualifies for rating as Class I or Class II in the Natural Resource Conservation Service land use capability classifications.*
- (2) *Land which qualifies for rating 80 through 100 in the Storie Index Rating.*
- (3) *Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.*
- (4) *Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars (\$200) per acre for three of the previous five years.*
- (5) *Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars (\$200) per acre for three of the previous five years.*

Section 30241

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas’ agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

- (a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
- (b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses and where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.
- (c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
- (d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.

- (e) By assuring that public service and facility expansions and non-agricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.
- (f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.

Section 30241.5

- (a) If the viability of existing agricultural uses is an issue pursuant to subdivision (b) of Section 30241 as to any local coastal program or amendment to any certified local coastal program submitted for review and approval under this division, the determination of "viability" shall include, but not be limited to, consideration of an economic feasibility evaluation containing at least both of the following elements:

- (1) An analysis of the gross revenue from the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.
- (2) An analysis of the operational expenses, excluding the cost of land, associated with the production of the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

For purposes of this subdivision, "area" means a geographic area of sufficient size to provide an accurate evaluation of the economic feasibility of agricultural uses for those lands included in the local coastal program or in the proposed amendment to a certified local coastal program.

- (b) The economic feasibility evaluation required by subdivision (a) shall be submitted to the commission, by the local government, as part of its submittal of a local coastal program or an amendment to any local coastal program. If the local government determines that it does not have the staff with the necessary expertise to conduct the economic feasibility evaluation, the evaluation may be conducted under agreement with the local government by a consultant selected jointly by local government and the executive director of the commission.

Section 30242

All other lands suitable for agricultural use shall not be converted to non-agricultural uses unless: (1) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

5.3 Land Use Plan Policies

This section provides land use policies intended to preserve agricultural resources.

Policy 5.1

"Non-prime agricultural land" means other coastal agricultural lands that are now in use for crops or grazing, or that are otherwise suitable for agriculture, but are not considered Prime Agricultural Land.

Policy 5.2

Commercial Agriculture means a routine and ongoing enterprise associated with a farm, grove, dairy, or other agricultural business, and shall include:

- (a) The cultivation and tillage of soil; crop rotation; fallowing for agricultural purposes; the production, cultivation, growing, replanting and harvesting of any agricultural commodity including viticulture, vermiculture, apiculture, or horticulture;
- (b) The raising of livestock, bees, fur bearing animals, fish or poultry, and dairying for sale;
- (c) Any practices performed by a farmer on a farm as incident to or in conjunction with those farming or grove operations, including the preparation for market, delivery to storage or to market, or delivery to carriers for transportation to market; and
- (d) Ordinary pasture maintenance and renovation and dry land farming operations consistent with rangeland management and soil disturbance activities.

Commercial Agriculture does not include crops or agriculture for personal consumption.

Policy 5.3

Existing agricultural uses within the County's Coastal Zone shall be encouraged when permitting development under the A70 – Limited Agriculture, RS – Single Family Residential, RR – Rural Residential, and RV – Variable Family Residential Use Regulation designation. To allow for the continued existence of agriculture, such as orchards and small farm activity, within the areas of the Coastal Zone designated as A70 – Limited Agriculture, R, the following shall be required:

- (a) The concentration of residential and accessory uses on a given lot will be encouraged to maintain the maximum amount of land available for agricultural use; and
- (b) The visual, natural resource and wildlife habitat values of subject properties and surrounding areas will be maintained. Proposed development would be required to be clustered to avoid or minimize impacts to environmental and other coastal resources, such as natural topography, native vegetation and public views.

Policy 5.4

Reclaimed water shall be utilized for irrigation, where feasible.

Policy 5.5

The County shall support the acquisition or voluntary dedication of agriculture conservation easements and programs that preserve agricultural lands, in accordance with the County Purchase of Agricultural Conservation Easement (PACE) program.

Policy 5.6

The County shall encourage the involvement and input of the agricultural community in matters relating to trails on or adjacent to agricultural lands.

Policy 5.7

Disposal of animal waste, wastewater, and any other byproducts of agricultural or equestrian activities in or near any watercourse is prohibited.

Policy 5.8

New development or redevelopment that includes livestock or animal husbandry shall include a Manure Management Plan to ensure the collection, storage, and disposal of manure is consistent with all of the policies of the LUP.

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6 Scenic and Visual Resources

6.1 Introduction

The protection of scenic resources within California’s coastal zones is a central component of LCPs. Section 30251 of the Coastal Act requires consideration to, and the protection of, scenic and visual qualities of coastal resources for the public. Section 30253 (e) of the Coastal Act also requires the protection of special communities that, because of their unique characteristics, are popular visitor destination points for recreational uses. The County’s Coastal Zone does not contain special communities per this definition, though the unique rural residential neighborhood character and large areas of open space within the County’s Coastal Zone greatly enhances the scenic qualities of the region.

The rolling, tree-lined hills within the County’s Coastal Zone provide a complementary scenic contrast to the sandy beaches and coastal bluffs along the coastline from Manchester Avenue, I-5, and Pacific Coast Highway. The topography of San Elijo Lagoon provides unique opportunities for future restoration and climate adaptation, as it feeds inland into parts of the County’s Coastal Zone, providing a natural overlap between open spaces for preservation and rural residential neighborhoods. With the exception of a few vacant lots, the County’s Coastal Zone is fully built out with rural residential properties nestled within the hills having scenic views of mature vegetation. The scenic resources of the County’s Coastal Zone provide value and contribute to the coastal viewshed due to the ample spacing between properties and preservation of mature and dense vegetation. Viewsheds within the County Coastal Zone are shown in Figure 14, Viewsheds.

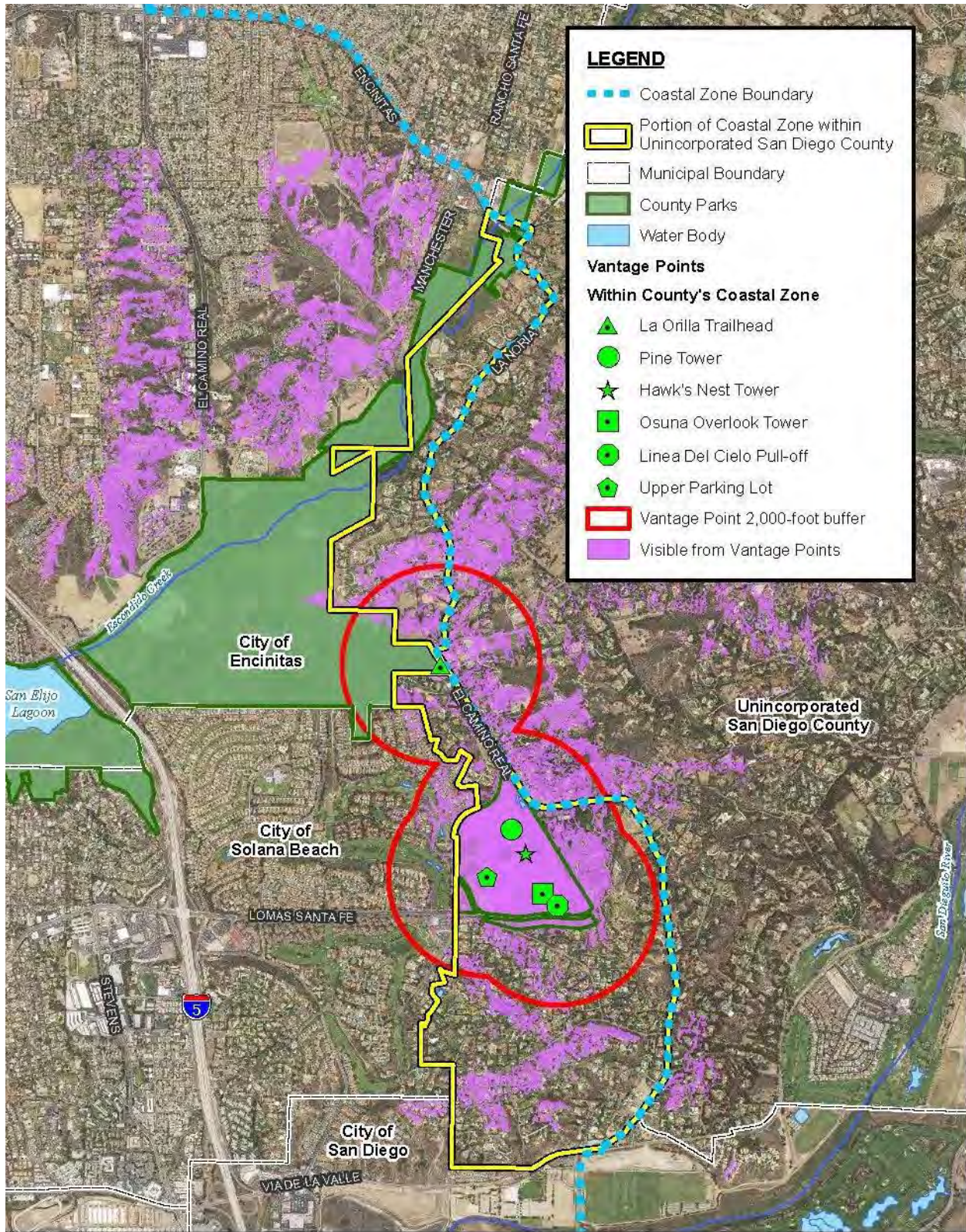
Public viewing areas outside of the County’s Coastal Zone include Manchester Avenue, I-5, Pacific Coast Highway, Lomas Santa Fe Drive, and Via De La Valle; open space areas within the County’s Coastal Zone are generally at least partially visible from these public viewing areas. Public viewing areas within the County’s Coastal Zone are in the Park, La Orilla Trailhead (which connects to the trail networks within San Elijo Lagoon Ecological Reserve), and the scenic drives along La Bajada to La Noria and El Camino Real, La Noria and El Camino Real, Highland Drive, Lomas Santa Fe Drive and Linea Del Cielo, and Sun Valley Road. Trail connections and viewpoints within the northern portion of the County’s Coastal Zone, adjacent to San Elijo Lagoon, are privately accessible.

6.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to scenic and visual resources.

Section 30251

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually



Source: SanGIS 2016; NAIP 2014.

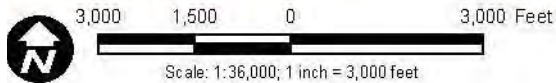


Figure 14
Viewsheds

degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the California Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

6.3 Land Use Plan Policies

This section provides land use policies intended to protect and preserve scenic and visual resources.

6.3.1 Preservation of Views and Vistas

Policy 6.1

Preserve the scenic and visual qualities of the County's Coastal Zone, including designated open space areas for conservation and recreation adjacent to the San Elijo Lagoon, San Dieguito Park, mature vegetation, and the rural residential neighborhoods of Stone Bridge, Sun Valley and Vicinity, and surrounding communities. Street trees and vegetation shall be chosen so as not to block views upon maturity.

Policy 6.2

Land divisions, including lot line adjustments, shall be designed to minimize impacts to visual resources by:

- clustering the building sites to minimize site disturbance and maximize open space;
- prohibiting building sites on ridgelines;
- minimizing the length of access roads and driveways;
- reducing the maximum allowable density in steeply sloping and visually sensitive areas;
- minimizing grading and alteration of natural landforms;
- landscaping or revegetating all cut and fill slopes, and other disturbed areas at the completion of grading; and
- incorporating interim seeding of graded building pad areas, if any, with native plants unless construction of approved structures commences within 30 days of the completion of grading.

Policy 6.3

Subsequent development on a parcel created through a land division shall conform to all provisions of the approved Coastal Development Permit that authorized the land division or any amendments thereto.

Policy 6.4

The following existing viewing points will be maintained, and where necessary, upgraded:

- Upper parking lot at San Dieguito Park;
- Pull-off on Linea del Cielo within San Dieguito Park;
- La Orilla Trailhead, and portions of the trail adjacent to the County's Coastal Zone;

- Pine Tower;
- Hawk’s Nest Tower; and
- Osuna Overlook Tower

Policy 6.5

Locations along public roads, railways, trails, parklands, and beaches that offer views of scenic resources are considered public viewing areas.

Development that may affect existing or potential public views shall be designed and sited in a manner that restores, preserves, or enhances designated view opportunities and visual qualities of the site.

To protect vista points, the scenic and visual qualities within the County’s Coastal Zone shall be designated as “Critical View Sheds” within which the character of development shall be regulated to protect the integrity of the vista points (Figure 6).

(a) Critical View Shed areas shall meet the following requirements:

- (1) Extend radially for 2,000 feet (610 meters) from the vista point, with the exception of San Dieguito Park, which would be included in its entirety;
- (2) Include areas upon which development could potentially obstruct, limit, or degrade the view.

(b) Development within the Critical View Shed area shall be subject to design review as part of any discretionary review and will be based on the following:

- (1) Building height, bulk, roof line and scale shall not obstruct, limit or degrade the existing views;
- (2) Landscaping shall not, at maturity, obstruct views;
- (3) Landscaping shall be located to screen adjacent undesirable views (parking lot areas, mechanical equipment etc.).

Public views to the County’s Coastal Zone and open spaces adjacent to San Elijo Lagoon from major public viewpoints, as identified in Figure 6 of the LUP, shall be protected. Existing public roads within the County’s Coastal Zone that provide views of the ocean or other scenic resources include:

- La Bajada to La Noria and El Camino Real
- La Noria and El Camino Real
- Highland Drive
- Lomas Santa Fe Drive and Linea Del Cielo
- Sun Valley Road

Road alignments within the County’s Coastal Zone shall minimize alterations to the landscape by following the contours of existing, natural topography such that scenic areas are enhanced.

6.3.2 Development

Policy 6.6

Development within the County’s Coastal Zone shall be subject to review based on the following design criteria, and in accordance with existing County regulations and ordinances. Development shall not obstruct public views within the Coastal Zone by:

- (a) Protecting site topography and steep slopes.
- (b) Minimizing or preventing substantial grading or reconfiguration of the project site.
- (c) Minimizing grading outside of the building footprint.
- (d) Eliminating flat building pads on slopes and utilizing split level or stepped-pad designs.
- (e) Requiring that artificial contours mimic the natural contours to and blend with the existing terrain of the site and surrounding area.
- (f) Clustering structures to minimize site disturbance and to minimize development area.
- (g) Minimizing height and length of cut and fill slopes.
- (h) Minimizing the height and length of retaining walls.
- (i) Cut and fill operations may be balanced on-site, where the grading does not substantially alter the existing topography and blends with the surrounding area.
- (j) Exporting cut material may be required to preserve the natural topography.
 - (l) Protecting natural site amenities such as trees, rocks, and natural drainage channels.
- (m) Protecting ridgelines.
- (n) Preserving dark skies.
- (o) Ensuring building height, bulk, roof line, and scale will not obstruct, limit, or degrade the existing views.
- (p) Ensuring visual compatibility with the character of surrounding areas.
- (q) Incorporating natural features (including mature trees and rock formations) into proposed development and requiring avoidance of sensitive environmental resources.
- (r) Minimizing removal of native vegetation, and ensuring landscape compatibility with existing vegetation.
- (s) Proposed landscaping shall be compatible with existing landscaping and shall take into consideration the appropriateness of selected plan materials to the area. Landscaping and plantings shall be used to the maximum extent practical to screen unsightly parking, storage and utility areas. Landscaping and plantings shall not obstruct significant views, either when installed or when they reach mature growth. (County of SD Z2 Use Regs, 2341.c.4) Require approval of landscaping plans.

Policy 6.7

New development on properties visible from public trails in and around San Elijo Lagoon and San Dieguito Park, or other public viewing areas, shall be sited and designed to protect public views of the ridgelines and natural features of the area through measures including, but not limited to, providing setbacks from the slope edge, restricting the building maximum size, reducing maximum height limits, incorporating landscape elements and screening, incorporating earthen colors and exterior materials that are compatible with the surrounding natural landscape (avoiding bright whites and other colors except as minor accents). The use of highly reflective materials shall be prohibited.

Policy 6.8

Fences, walls, and landscaping shall not block major public views of scenic resources or views from other public viewing areas.

Policy 6.9

The impacts of proposed development on existing public views of scenic resources shall be assessed by the County prior to approval of proposed development or redevelopment to preserve the existing character of established neighborhoods. Existing public views of the ocean and scenic resources shall be protected.

Policy 6.10

Require development to conform to the natural topography to limit grading and to incorporate and not significantly alter the dominant physical characteristics of the site.

Policy 6.11

Buildings shall be designed to fit the existing topography. This can be accomplished by planning single level houses for relatively flat sites, and stepping houses up or down gradually sloped sites where this would not introduce impacts to sensitive habitats, result in geologic instability, or impact scenic resources available from public viewing areas.

Policy 6.12

New development, including a building pad, if provided, shall be sited on the flattest area of the project site, except where there is an alternative location that would be more protective of scenic resources or ESHA.

Policy 6.13

All new structures shall be sited and designed to minimize impacts to scenic resources by:

- Ensuring visual compatibility with the character of surrounding areas;
- Avoiding large cantilevers or under stories; and

- Incorporating setbacks.

6.3.3 Signage

Policy 6.14

Signs shall be prohibited in areas within the County’s Coastal Zone with the exception of signs that serve as way-finding and road usage under the County’s jurisdiction, temporary real estate signs, and signage allowed through commercial zoning designations. The location, design, number, and size of all signs shall not detract from the visual setting of the County’s Coastal Zone, obstruct significant views, nor incur any adverse impact upon the basic character of the community or on property values.

6.3.4 Night Lighting

Policy 6.15

Exterior lighting (with the exception of traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity features, screened, and directed downward and away from ESHA to minimize impacts on wildlife and limit visibility from any adjoining property or street. Night lighting for any development located adjacent to ESHA, ESHA buffers, or where night lighting would increase illumination in ESHA, shall be prohibited.

Policy 6.16

The County’s Coastal Zone contains limited street lighting in order to preserve the dark night sky as part of the rural residential character. As such, street lighting deemed necessary for traffic safety at road intersections and along streets shall be low level, timed, directed downward, and screened to minimize lighting impacts on the dark sky.

6.3.5 Telecommunications Facilities

Policy 6.17

Utilities shall be constructed and routed underground except in cases where natural features prevent undergrounding or where safety considerations necessitate above ground construction and routing. Utilities determined to be constructed aboveground shall be done in a manner that minimizes impacts to views and colocation of utilities shall be required where feasible.

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7 Planning, New Development, and Public Works

7.1 Introduction

The County's General Plan guides the intensity, location, and distribution of land uses in the County's Coastal Zone by identifying land use designations. Land within the County's Coastal Zone is primarily designated as Semi-Rural Residential (SR-2). The remaining land within the County's Coastal Zone is designated as Rural Lands (RL-20), Open Space (Conservation), Open Space (Recreation), and small pockets of Office Professional (Semi-Rural) and Public/Semi-Public Facilities (P/SP). The land use designations below are based on existing definitions as contained in the County's General Plan. The designations denote the type, density, and intensity of development that maybe permitted for each property consistent with all applicable LCP policies. The Land Use Designations that are applicable to the County's Coastal Zone are shown in Figure 4. Following is a description of the land use designations:

- **Semi-Rural Residential (SR-2)** – (one dwelling unit per two acres): Semi-Rural designations are applied to areas of the County identified for lower-density residential neighborhoods, recreation areas, agricultural operations, and related commercial uses that support rural communities. The principal permitted use is a single-family dwelling. Semi-Rural areas often function as a transition between Village and Rural Lands categories, providing opportunities for development but without the intensity and level of public services expected in Villages and with design approaches that blend the development with the natural landscape.
- **Rural Lands (RL-20)** – (one dwelling unit per twenty acres): Rural Lands categories area applied to large open space and very-low density private and publicly owned lands that provide for agriculture, managed resource production, conservation, and recreation and thereby retain rural character. The principal permitted use is a single-family dwelling. Rural areas are not appropriate for intensive residential or commercial uses due to significant topographical or environmental constraints, limited access, and the lack of public services or facilities.
- **Open Space (Conservation)**: This designation is applied to large tracts of land, undeveloped and usually dedicated to open space, that are owned by a jurisdiction, public agency, or conservancy group. The principal permitted use is habitat preservation. Allowed uses include habitat preserves, passive recreation, and reservoirs. Grazing and other uses or structures ancillary to the primary open space may be permitted if they do not substantially diminish protected resources or alter the character of the area. Such ancillary uses within this designation will typically be controlled by use-permit limitations. This designation is normally not applied to conservation easements within residential subdivisions on private lots.
- **Open Space (Recreation)**: This designation is applied to large, existing recreational areas. The principal permitted use is low-intensity recreation. This designation allows for active and passive recreational areas such as parks, athletic fields, and golf courses. Uses and structures ancillary to the primary open space may be permitted to enhance recreational opportunities only if they relate to the recreational purpose and do not substantially alter the character of the area.
- **Office Professional (Semi-Rural)**: This designation provides areas dedicated to administrative and professional services, as well as limited retail uses related to or serving the needs of the primary

office uses. The principal permitted use is professional and business offices. Residential development may also be allowed as a secondary use in certain instances. The maximum intensity of Office Professional development allowed within the Coastal Zone is 0.45 FAR.

- **Public/Semi-Public Facilities (P/SP):** This designation identifies major facilities built and maintained for public use. The principal permitted use is public facilities. Examples include institutional uses, academic facilities, government complexes, and community service facilities such as County airports, public schools, correctional institutions, solid waste facilities, water facilities, and sewer facilities. A maximum FAR of 0.50 is permitted by this designation.

In terms of existing uses within the County's Coastal Zone, the majority of the area is already built out as low-density estate residential, with pockets of open space for recreation and for conservation. In addition, there are small areas with commercial uses and with public facility uses. Thus, there is little undeveloped or vacant land. The majority of development that is anticipated to occur within the County's Coastal Zone is expected to be residential additions and repairs/replacements. All new development is subject to review for consistency with existing County regulations including but not limited to the General Plan, San Dieguito Community Plan, Zoning Ordinance, Code of Regulatory Ordinances, and CEQA, in addition to conformance with the LCP. Public works facilities within the Coastal Zone include County maintained roadways and the following three channels: Rancho Serena flood control channel, Sun Valley Road flood channel, and Linea Del Cielo Road flood channel. Regular maintenance of roadways and channels does not require a Coastal Development Permit provided that any work does not result in impacts to coastal resources. Replacement or expansion of public works facilities must be evaluated on a case by case basis to determine whether a Coastal Development Permit is required.

7.2 Coastal Act Policies

This section incorporates the principal Coastal Act policies relevant to planning, new development and public works.

Section 30250

- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
- (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.
- (c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

Section 30252

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

7.3 Land Use Plan Policies

This section provides land use policies related to planning, new development, and public works.

7.3.1 General Policies

Policy 7.1

Figure 4 shows the existing Land Use Designations for each property within the County's Coastal Zone. All development that requires a discretionary action is subject to written findings affirming that it is consistent with all LUP policies, regulations within the IP, and provisions of the County's certified LCP, except as otherwise noted in Section 9404 (Exemptions) of the IP.

Policy 7.2

Development within the County's Coastal Zone shall comply with the principal permitted use as established in this section and described in the IP. Uses other than the principal permitted use must be approved in accordance with all policies of this LCP, and are subject to appeal to the Coastal Commission.

Policy 7.3

If there is a conflict between a provision of this LCP and a provision of the General Plan, or any other County-adopted plan, resolution, or ordinance not included in the LCP, and it is not possible for the development to comply with both the LCP and such other plan, resolution or ordinance, the LCP shall take precedence and the development shall not be approved unless it complies with the LCP provision.

Policy 7.4

"Economic life of a structure" means 75 to 100 years unless specified and restricted for specific development proposals.

Policy 7.5

"Infill Development" is defined as new development sited on an existing, legally created, vacant lot or redeveloped parcel within an existing urban or sub-urban community.

Policy 7.6

"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes.

Policy 7.7

"New Development" is defined as the site preparation for, and construction of, entirely new structures and/or significant extensions to existing structures that exceed either the floor area, height or bulk of the former structure by more than 10 percent, whether or not the site was previously occupied.

Policy 7.8

"Redevelopment" is defined as the demolition or removal of 50 percent or more of the major structural components of an existing development, which includes exterior walls, floor and roof structures, or the foundation; or a cumulative increase of 50 percent of the floor area of an existing development. Cumulative increases shall be tracked starting on the date of the certification of the LCP.

Redevelopment of existing impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed exposing underlying soil during construction. Redevelopment does not include trenching and resurfacing associated with utility work, resurfacing existing roadways, new sidewalk construction, pedestrian ramps, or bike lane on existing roads; and routine replacement of damaged pavement, such as pothole repair.

Policy 7.9

"Nonconforming Structure" is defined as a building, structure or facility, or portion thereof, which was lawfully erected, altered, or maintained prior to the certification date of the LUP that does not conform to the provisions of the LCP. When redevelopment of an existing, non-conforming structure or use includes the cumulative redevelopment of 50 percent, the entire structure shall be brought into conformance with all policies and standards of the LCP including, but not limited to steep slopes, ESHA, and floodplain policies. Cumulative increases shall be tracked starting on the date of the certification of the LCP. "Nonconforming Use" is defined as the use of a building, structure, or site, or portion thereof, which was lawfully established and maintained prior to the adopted date of the LUP, but which, no longer conforms to the specific regulations applicable to the zone in which it is located. Such uses may be

maintained and repaired, as long as the improvements do not increase the size or degree of the non-conformity.

Policy 7.10

“Principal Permitted Use” means the primary use for which land or a building is or may be intended, occupied, maintained, arranged or designed as established by the County’s LUP.

Policy 7.11

New development and redevelopment shall be sited and designed to minimize impacts to coastal resources by:

- Minimizing grading and landform alteration.
- Minimizing the removal of natural vegetation, both that required for the building pad or driveway, as well as, the required fuel modification around structures.
- Locate accessory structures within the approved development area and cluster structures to minimize the need for fuel modification.
- Minimizing the length of the access road or driveway, except where a longer roadway can be demonstrated to avoid or be more protective of resources. Access roads and driveway lengths must comply with fire code requirements.
- Grading for access roads and driveways should be minimized; the standard for new on-site access roads shall be a maximum of 300 feet or one-third the parcel depth, whichever is less. Longer roads may be allowed on approval of the Planning Commission, if the determination can be made that adverse environmental impacts will not be incurred. Such approval shall constitute a conditional use to be processed consistent with the LUP provisions.
- Limiting earthmoving operations during the rainy season to prevent soil erosion, stream siltation, reduced water percolation, and increased runoff.
- Prevent net increases in baseline flows for any receiving waterbody.
- Minimizing impacts to water quality.

Policy 7.12

Off-street parking shall be provided for all new development to assure there is adequate public access to coastal resources.

Policy 7.13

Grading should retain the natural appearance of the existing land forms, and natural slopes in excess of 25 percent shall be protected from grading, excavation, and deposition of soil or any other material in accordance with the County’s Resource Protection and Grading Ordinance restrictions, as specified in the IP.

Policy 7.14

Communication processing, storage, and transmission facilities, and lines shall be sited, designed, and operated to avoid then minimize impacts to ESHA and scenic resources consistent with all provisions of the LCP. If there is no feasible alternative that can eliminate all impacts, the alternative that would result in the fewest or least impacts shall be selected consistent with federal law.

Policy 7.15

Land divisions shall be designed to cluster development, including building pads, if any, in order to minimize site disturbance, landform alteration, and removal of native vegetation, to minimize required fuel modification, and to maximize open space, as feasible.

Policy 7.16

The County shall not approve a land division if any parcel being created would not be consistent with the maximum density designated by the LUP map, and the slope density criteria. In cases where additional density is desired, Coastal Commission approval in the form of an LCP amendment would be required in addition to County approval.

Policy 7.17

Manage the location of new development and redevelopment to avoid impacts to resources including but not limited to, visual and scenic resources, public access and recreation, ESHA, and wetlands.

Policy 7.18

Land divisions are only permitted if they are approved by a Coastal Development Permit. Land divisions include subdivisions (through parcel map, tract map, grant deed, or any other method), lot line adjustments, revisions, mergers, and certificates of compliance.

Policy 7.19

Subsequent development on a parcel created through a land division shall conform to all provisions of the approved land division permit, including, but not limited to, the building site location, access road/driveway design, and grading design and volumes.

Policy 7.20

For issuance of an unconditional certificate of compliance pursuant to Government Code Section 66499.35 for a land division that occurred prior to the effective date of the Coastal Act (or Proposition 20 for parcels within the coastal zone as defined in that proposition), where the parcel(s) was created in compliance with the law in effect at the time of its creation and the parcel(s) has not subsequently been merged, subdivided, subject to a lot line adjustment, lot split or any other division of land or otherwise altered, the County shall not require a Coastal Development Permit. For issuance of a conditional certificate of compliance pursuant to Government Code Section 66499.35 for a land division that occurred

prior to the effective date of the Coastal Act, where the parcel(s) was not created in compliance with the law in effect at the time of its creation, the conditional certificate of compliance shall not be issued unless a Coastal Development Permit that authorizes the land division is approved. In such a situation, the County shall only approve a Coastal Development Permit if the land division, as proposed or as conditioned, complies with all policies of the LCP.

Policy 7.21

For issuance of either a conditional or an unconditional certificate of compliance pursuant to Government Code Section 66499.35 for a land division that occurred after the effective date of the Coastal Act, the certificate of compliance shall not be issued unless a Coastal Development Permit that authorizes the land division is approved. In such a situation, the County shall only approve a Coastal Development Permit if the land division, as proposed or as conditioned, complies with all policies of the LCP.

Policy 7.22

Existing, lawfully established structures that were built prior to the adopted date of the LUP that do not conform to the provisions of the LCP shall be considered non-conforming structures. Non-conforming uses or structures may not be increased or expanded into additional locations or structures. Such structures may be maintained and repaired as long as the improvements do not increase the size or degree of non-conformity. This section shall not be interpreted to allow the reconstruction of a non-conforming structure unless destroyed by a disaster as defined in Public Resources Code § 30610(g)(2)(A). Additions and improvements to such structures may be permitted provided that such additions or improvements do not increase the size or degree of the non-conformity.

Policy 7.23

Protection of ESHA and public access shall take priority over other development standards and where there is unresolvable conflict between general development standards and ESHA or public access protection, the standards that are most protective of ESHA and public access shall have precedence.

Policy 7.24

A land division shall not be approved if it creates a parcel that cannot support an identified building site that could be developed consistent with all of the policies of the LCP.

Policy 7.25

Assess the potential for environmental effects of new development or redevelopment before granting County approval in accordance with CEQA and to avoid, reduce, and then mitigate impacts where feasible.

Policy 7.26

New development shall conform to the County's LCP regarding steep slopes, including measures to minimize potential impacts to scenic and visual resources, and to minimize the risk from hazards. The measures include, but are not limited to limiting grading, and retaining walls, restricting development on steep slopes, protecting ridgelines, and applying siting, and design restrictions (scenic and visual policies).

Policy 7.27

The installation of reclaimed water lines to provide irrigation for approved landscaping or fuel modification areas for approved development may be permitted, if consistent with all policies of the LCP.

Policy 7.28

Consistent with the Coastal Act (Public Resources Code §30610(d)), repair and maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities do not require a Coastal Development Permit, although the County may require a permit if the County determines such repairs and maintenance involve a substantial adverse environmental impact that cannot be avoided.

However, for purposes of compliance with the Public Resources Code Section 30610(d), the following extraordinary methods of repair and maintenance shall require a Coastal Development Permit because they involve a potential risk of substantial adverse environmental impact:

- (a) Any repair or maintenance to facilities, or structures, or work located in an ESHA, any sand area, within 50 feet of the edge of a steep slope or ESHA, or within 20 feet of coastal waters or streams, that include:
 - (1) The placement or removal, whether temporary or permanent, of any form of solid materials.
 - (2) The presence, whether temporary or permanent, of mechanized equipment or construction materials on any sand area, bluff, or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams.

Policy 7.29

A Coastal Development Permit may only be approved for new development on legally created lots. All applications for new development on a vacant parcel shall provide evidence of the date and method by which the subject parcel was created. If no such evidence can be found, a Coastal Development Permit shall be sought to establish the legality of the parcel.

Policy 7.30

The height of structures shall be limited to minimize impacts to coastal resources. Except for lands designated for RS (Residential-Single) and S86 (Open Space), the maximum allowable height for structures within the County’s coastal zone shall be 35 feet above existing or finished grade, whichever is lower. The maximum allowable height for lands designated S86 shall be 15 feet above existing or finished grade, whichever is lower, and the maximum allowable height for lands designated RS shall be 30 feet above existing or finished grade, whichever is lower. Chimneys and rooftop antennas may be permitted to extend above the permitted height of the structure.

Policy 7.31

All lands having a slope with natural gradient of 25% or greater and a minimum rise of 10 feet, unless said land has been substantially disturbed by previous legal grading, are determined to be steep slope lands.

The minimum rise shall be measured vertically from the toe of the slope to the top of the slope within the project boundary.

Policy 7.32

If a parcel contains steep slope lands, prior to the issuance of a Coastal Development Permit, a slope analysis must be completed by a qualified person such as a registered or licensed architect, landscape architect, engineering geologist, land surveyor, or civil engineer based upon a topographic map using ten foot contour intervals or less. The slope analysis shall show the slope categories for the entire property in acres. Categories must include the following:

- Less than 25% slope
- 25% and greater up to 50% slope
- 50% and greater slope

Policy 7.33

For all types of projects, the maximum encroachment that may be permitted into steep slope lands is set forth by the table below. This encroachment may be further reduced due to environmental concerns or other design criteria.

Percentage of Lot in Steep Slope Lands	Maximum Encroachment Allowance in Steep Slope Lands
75% or less	10%
80%	12%
85%	14%
90%	16%
95%	18%
100%	20%

Policy 7.34

When a site contains steep slopes that cover 10 percent or more of a lot proposed for development, the on-site steep slopes must be protected as open space with an easement or deed restriction on approval of a Coastal Development Permit.

Policy 7.35

Notwithstanding the provisions of Policy 7.31 above, the following types of development shall be allowed on steep slope lands and shall not be subject to the encroachment limitations set forth above:

- a. All public roads identified in the LUP, see Figure 2, provided that written findings are made by the hearing body approving the application that no less environmentally damaging alternative alignment or non-structural alternative measure exists.

- b. Local public streets or private roads and driveways which are necessary for primary access to the portion of the site to be developed, provided written findings are made that no less environmentally damaging alternative exists. The determination of whether or not a proposed road or driveway qualifies for an exemption, in whole or in part, shall be made by the Director of Planning & Development Services based upon an analysis of the project site.
- c. Public and private utility systems, provided that written findings are made that the least environmentally damaging alignment has been selected. However, septic systems are not included in this exemption unless Department of Health has certified that no grading or benching is required.
- d. Areas with native vegetation, which are cleared or trimmed to protect existing or proposed structures in potential danger from fire, provided that written findings are made that the area of such clearance is the minimum necessary to comply with applicable fire codes or orders of fire safety officials and that such slopes retain their native root stock or are planted with native vegetation having a low fuel content, and provided further that the natural landform is not reconfigured.
- e. Trails for passive recreational use according to approved park plans.

Policy 7.36

Upgrade existing commercial areas through clean-up, landscaping, beautification, utility undergrounding, and by repaving and/or redesign of parking lots.

7.3.2 Commercial Policies

Policy 7.37

Consider commercial uses in adjacent urbanized areas when determining the need for additional or expanded commercial uses within the County’s Coastal Zone.

Policy 7.38

Maintain and protect land planned and zoned for office-professional, and general commercial, land uses along Via de la Valle. These commercial zoning districts provide business that serve both visitors and local residents with a diverse selection of goods and services.

Policy 7.39

Encourage visitor serving retail uses in the commercial zones. Existing visitor serving uses shall be protected and new visitors serving facilities are encouraged.

7.3.3 Residential Policies

Policy 7.40

Require lot sizes within the Residential areas of the Covenant of Rancho Santa Fe to be preserved at 2.86 acres and 2 acres, in zoning and through discretionary actions.

Policy 7.41

Except within the Covenant of Rancho Santa Fe, site designs should emphasize the clustering of dwelling units in order to improve upon the amount and character of usable open space.

Policy 7.42

New and existing residential development should provide landscaping between the curb and abutting property line and underground utilities.

Policy 7.43

When the natural terrain is altered, new landscaping shall be in conformance with the County's LCP₂ which requires compliance with water conservation measures and the use of native, or drought tolerant, and fire resistive species in conformance with the California Model Water Efficient Landscape Ordinance in effect at the time of application submittal.

Policy 7.44

All residential development, including land divisions and lot line adjustments, shall conform to all applicable LCP policies, including maximum density provisions. Allowable densities are stated as maximums. Compliance with the other policies of the LCP may further limit the maximum allowable density of development.

Policy 7.45

The provision of parking spaces shall be in conformance with the parking standards set forth in the LCP, and determined by the type of development application. In no case should the provision of parking negatively impact the ability for the public to access scenic and other coastal resources within the Coastal Zone.

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8 Cultural and Paleontological Resources

8.1 Introduction

The Coastal Act requires mitigation for any adverse impacts on archaeological/cultural and/or paleontological resources. As such, a brief history of the region and results from the existing cultural records search is provided in this section.

8.1.1 Regional History

The San Elijo Lagoon area supported a substantial native coastal population, starting around 8,000 years ago, as coastal waters began to slow and shape formations of a productive bay, lagoon, and estuary habitats (San Elijo Lagoon Conservancy 2016). The Kumeyaay group occupied much of San Elijo Lagoon and the County's Coastal Zone prior to Spanish colonization starting in the late 1700s. Most of the area was largely undeveloped under the Spanish land grant and ownership of Juan Maria Osuna between 1830 to early 1900s, and mainly used for grazing and agriculture (San Diego County 2014).

Under ownership of the Santa Fe Railway and Santa Fe Land Improvement company between the early 1890s through 1928, Coast Highway 101 and the Atchison, Topeka, and Santa Fe Railroad developed as major transportation routes to enable coastal access, alongside the communities of Solana Beach, Encinitas, and Rancho Santa Fe around the lagoon (San Elijo Lagoon Conservancy 2016). The Rancho Santa Fe Covenant was established in 1928 and set in place basic restrictions and conditions regulating future development of the community in order to maintain the characteristics of farmer estates, thereby becoming one of the first planned communities in California (Rancho Santa Fe Historical Society 2016; California State Parks 2016). The Santa Fe Covenant area was designated as a California State Landmark in 1982 in recognition of its history and unique development pattern (San Diego County 2014).

8.1.2 Existing Cultural Records Search Results

A records search was performed of the records on file at the South Coastal Information Center (SCIC) and provided to the County under contract. The SCIC manages the San Diego County portion of the State of California's records of cultural resources for the California Office of Historic Preservation (OHP). The search area included the County's Coastal Zone and a buffer of 300 feet.

The records search identified a total of 15 cultural resources within the search area. Of the 15 resources, 13 are prehistoric archaeological sites, 1 is a historic archaeological site, and 1 is a historic building. Archaeological site types are summarized in Table 4 below.

Table 4. Archaeological Site Types

Site Type	Count
Historic-period resource (bridge, refuse scatter, structure, well/cistern)	1
Prehistoric habitation/temporary camp	3
Prehistoric lithic & shell scatter	6
Prehistoric shell midden/scatter	2
Isolated artifact/feature	2

Based on geological and environmental characteristics of the area, it is likely that undiscovered archaeological sites may exist within portions of the County’s Coastal Zone. In particular, the area around San Elijo Lagoon is rich in resources that would have been appealing to past peoples. Many of the prehistoric sites identified during the records search are clustered around the lagoon.

8.1.3 Coastal Act Provisions

The Coastal Act does not explicitly address protection of historical resources; however, Sections 30244 and 30253(e) of the Coastal Act mandate protection of archaeological and paleontological resources as well as protection of coastal communities that draw visitors because of their special characteristics, including in terms of the way in which historic resources contribute to an area’s community character. Similarly, Section 30251 protection for visual resources extends to the manner in which history affects and informs such resources.

8.2 Coastal Act Policies

Section 30244

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

8.3 Land Use Plan Policies

This section provides land use policies related to the preservation of cultural, archaeological, and paleontological resources.

Policy 8.1

New development within archaeologically sensitive areas shall be conditioned to implement appropriate mitigation measures.

Policy 8.2

New development should incorporate the placement of cultural resource areas within open space easements, landscape areas or parks. Capping of sites may be an appropriate measure dependent upon

the project specifics. The County Official in consultation with the Project Archaeologist and Native American monitor will determine the appropriate mitigations.

Policy 8.3

The discovery of cultural resources during pre-development surveys and during development shall require that all ground disturbance operations be stopped in the area of discovery to allow evaluation of the identified resource. Outreach shall be conducted with the culturally-affiliated tribe(s). Development shall include appropriate mitigation to protect the quality and integrity of these resources.

Policy 8.4

Require consultation with affected communities, including local tribes, to determine the appropriate treatment of cultural resources.

Policy 8.5

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.

Policy 8.6

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

Policy 8.7

Paleontological monitors are required during grading operations at the discretion of County officials, per the County's Guidelines for Determining Significance – Cultural Resources. Paleontological monitoring is required for excavation.

Policy 8.8

Encourage the preservation and 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 for all new development and construction.

Policy 8.9

New development shall protect and preserve significant archaeological, historical and paleontological resources from destruction, and shall avoid, and minimize impacts to such resources consistent with CEQA.

Policy 8.10

All new development or construction shall be preceded by surveys, test excavations and evaluations to identify cultural resources. Appropriate mitigation shall be implemented in accordance with the County's Guidelines for Determining Significance – Cultural Resources including but not limited to monitoring, capping, and repatriation of resources. All site locations shall be maintained in a confidential appendix.

Policy 8.11

Grading operations shall be suspended upon discovery of fossils greater than twelve inches in any dimension. The County Official shall be notified. The appropriate resource recovery operations shall be carried out according to County Guidelines and shall be completed prior to the County Official's authorization to resume normal grading operations and County's Guidelines for Determining Significance – Cultural Resources.

Policy 8.12

Encourage the owners of significant historic architectural sites to apply for Mills Act historical property designation for income tax benefits and to register for Landmark Zoning with the County Historic Site Board.

Policy 8.13

New development on sites identified as archaeologically sensitive shall include on-site monitoring by a qualified archaeologist for all grading, excavation, and site preparation that involve earth moving operations by a qualified archaeologist(s), and appropriate Native American consultant(s).

Policy 8.14

Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.

Policy 8.15

The County shall coordinate with appropriate agencies (e.g. Native American Heritage Commission, State Historic Preservation Officer) and tribal representatives to identify archaeologically sensitive areas and to determine the appropriate treatment of cultural resources. Such information should be kept confidential to protect archaeological resources.

Policy 8.16

Where development would adversely impact historical or archaeological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

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9 Coastal Hazards

9.1 Introduction

There are three primary types of natural hazards in the County Coastal Zone: hillside-related geologic hazards, flooding hazards, and fire hazards. Hillside-related geologic hazards occur due to the presence of steep slopes, shown on Figure 10, Steep Slopes. Flood hazards areas in the County's Coastal Zone consist of the 100-year and 500-year floodplains, shown in Appendix A, Figure 1, Federal Emergency Management (FEMA) Special Flood Hazard Areas. Fire hazards in this portion of the County are described by the presence of wildland urban interface (WUI) which are areas designated by CALFire as those in which mature vegetation and open space are adjacent or interspersed within urban and residential zones. As illustrated on Figure 15, the entirety of the County's Coastal Zone is identified as a wildland urban interface area. Policies related to each of these natural hazard areas are included in the LUP. Other potential hazards that may occur within the County's Coastal Zone include rain-induced landslide hazards, liquefaction hazards, earthquake hazards, and dam failure hazards as described in the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (August 2010).

Managing development to respond to coastal hazards is a key component of a local coastal program. The Coastal Act policies direct new development to reduce risks to life and property and avoid substantial changes to natural landforms. Coastal Act Section 30253 provides, in part, that new development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The responses to coastal hazards in an LUP should provide for solutions that have the least impacts on coastal resources. There are no policies in the LUP related to waves, storm surge, tsunami, or other oceanfront-specific hazards because the County's Coastal Zone is located entirely inland.

9.2 Coastal Act Policies

Section 30236

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30253

New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.
- (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.
- (d) Minimize energy consumption and vehicle miles traveled.
- (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

9.3 Land Use Plan Policies

This section provides land use policies related to coastal hazards.

9.3.1 General Policies

Policy 9.1

Require that development be located and designed to protect property and residents from the risks of hazards.

Policy 9.2

Information should be provided to the public concerning hazards and appropriate means of minimizing the harmful effects of natural disasters upon persons and property relative to siting, design and construction.

Policy 9.3

The County of San Diego Coastal Zone contains areas subject to hazards that present risks to life and property. These areas require additional development controls to minimize risks. Potential hazards in the Coastal Zone include, but are not limited to, the following:

- Seismic ground shaking: Shaking induced by seismic waves traveling through an area as a result of an earthquake on a regional geologic fault.
- Liquefaction Hazard: Areas where water-saturated artificial fill or sediment can potentially lose strength and fail during strong ground shaking; related hazards include dynamic compaction and lateral spread.
- Earthquake induced landslides.
- Flood Hazard: Areas most likely to flood during major storms.

- Fire hazard: Areas subject to major wildfires located in the County’s WUI.
- Rain-Induced Landslide Hazard: Excessive rainfall on a cliff or slope.
- Dam Failure Hazard: Large quantity of water suddenly released with a great potential to cause human casualties, economic loss, lifeline disruption, and environmental damage.

Policy 9.4

Land divisions, including lot line adjustments, shall be prohibited unless all proposed parcels can be demonstrated to be safe from flooding, erosion, fire and geologic hazards and ~~will~~ can provide a safe, legal, all-weather access road(s), which can be constructed consistent with all policies of the LCP.

Policy 9.5

New development which does not conform to the provisions of the LCP shall be prohibited on property or in areas where such development would present an extraordinary risk to life and property due to an existing or demonstrated potential public health and safety hazard.

9.3.2 Geologic Hazards Policies

Policy 9.6

Require development to be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.

Policy 9.7

Direct development away from areas with high landslide, mudslide, or rock fall potential.

Policy 9.8

Prohibit development from causing or contributing to slope instability regarding steep slopes by limiting encroachment in accordance with policies contained in Section 7 Planning, New Development, and Public Works of the LCP.

Policy 9.9

Require a quantitative slope stability analysis for all Coastal Development Permit applications that shows the slope categories for the entire property in compliance with the IP and the policies contained in the LCP.

Policy 9.10

Where site-specific analysis indicates that a parcel contains natural slopes exceeding 25 percent grade, site development plan submittal requirements shall include:

(a) A slope analysis shall be completed by a qualified person such as a registered or licensed architect, landscape architect, engineering geologist, land surveyor, or civil engineer based upon a topographic map using ten foot contour intervals or less. The slope analysis shall show the slope categories for the entire property in acres, using the following categories: (a₁) less than 25% slope (b₂) 25% and greater up to 50% slope (c₃) 50% and greater slope.

(b) A geological reconnaissance report for structures or improvements proposed within any areas of greater than 25% slope, as such development is strongly discouraged and would be denied approval unless as allowed in (c) below.

(c) No development, grading, planting, excavation, deposit of soil or other material, or removal of natural vegetation, except as may be necessary for fire safety or installation of utility lines, shall be permitted on steep natural slopes of 25% grade or greater. This standard may be modified only to the extent that its strict application would preclude the minimum reasonable use of a property, provided that such a modification is consistent with the other provisions of the LCP, and that clustering, setback variances, and other appropriate techniques have been utilized to the maximum extent feasible in order to avoid or minimize alteration of such natural steep slopes. No alteration of such natural steep slopes shall be permitted in order to obtain use of a property in excess of the minimum reasonable use.

Policy 9.11

New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner, in order to minimize hazards resulting from increased runoff, erosion, and other hydrologic impacts to water bodies.

Policy 9.12

Regulate development in hillside areas to minimize alteration of natural landforms and enhance scenic qualities of the County, protect native coastal vegetation, preserve existing watersheds, and reduce the potential for environmental hazards including soil erosion, landslides, adverse impacts due to runoff, and other impacts which may affect general safety and welfare.

Policy 9.13

Any projects that propose building on inland bluffs must include a geologic reconnaissance report to determine the geologic stability of the area. When additional information is needed to assess stability, a preliminary engineering geology report must also be prepared identifying the results of the subsurface investigation regarding the nature and magnitude of unstable conditions, as well as mitigation measures needed to reduce or avoid such conditions.

Policy 9.14

On ancient landslides, unstable slopes, and other geologic hazard areas new development shall only be permitted where an adequate stability can be maintained for the expected life of the development. Adequate stability generally means a minimum factor of safety of 1.5 (static) and 1.1 (seismic)

9.3.3 Fire Hazard Policies

Policy 9.15

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

Policy 9.16

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 in consultation with the appropriate Fire Authority Having Jurisdiction (FAHJ).

Policy 9.17

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.

Policy 9.18

Require all new development or redevelopment, as defined in Section 7, Planning, New Development, and Public Works of this LCP, 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.

Policy 9.19

Support programs consistent with state law that require fuel management/modification within established defensible space boundaries. When strategic fuel modification is necessary outside of defensible space, new development shall be sited so that fuel management protects structures and avoid impacts to ESHA, and ESHA buffers. Impacts to other native vegetation shall be avoided to the maximum extent feasible. Vegetation management outside of the areas of defensible space should occur as determined necessary by the Fire Authority Having Jurisdiction (FAHJ) and should preserve ESHA, ESHA buffers, and native vegetation.

Policy 9.20

Ensure that water supply systems for development are adequate to combat structural and wildland fires.

Policy 9.21

Fuel Modification Requirements for New Development – New development, including but not limited to subdivisions and lot line adjustments shall be sited and designed so that no brush management or the 100 ft. fuel modification area encroaches into ESHA.

Policy 9.22

Fuel Modification Requirements for Additions to Existing Structures –Where a new addition would encroach closer than 100 feet to an ESHA, the Fire Authority Having Jurisdiction shall review the project for fuel modification requirements. If a 100 foot fuel modification zone would encroach into ESHA, the additions shall not be permitted unless the addition would not encroach any closer to ESHA than existing principal structures on either side of the development.

Policy 9.23

Fuel Modification Requirements for Existing Development - The County shall encourage property owners to implement fire risk reduction alternatives, as a priority over fuel modification in ESHA. However, the Fire Authority Having Jurisdiction may require fuel modification to occur adjacent to existing development as outlined in the established zones. If fuel modification is required by the Fire Authority Having Jurisdiction for existing development would encroach into ESHA, the alternative that has the least impact on ESHA shall be implemented where feasible.

Policy 9.24

All new development in the WUI or adjacent to ESHA shall be sited and designed to minimize required fuel modification to the maximum extent feasible in order to avoid environmentally sensitive habitat disturbance or destruction, and removal or modification of natural vegetation, while providing for fire safety.

Policy 9.25

Any required thinning of flammable vegetation in the WUI shall be conducted by hand crews between September 15 and February 15. To minimize impacts to habitat, sensitive plant species may not be thinned or removed. Sensitive species may not be thinned or disturbed in any way.

9.3.4 Flood Hazard Policies

Policy 9.26

Federal floodplain development requirements, as established by the Federal Emergency Management Agency (FEMA), are tied to present day 100-year flood conditions. Future sea-level rise (SLR) guidance has been established by the California State Coastal Conservancy (CSCC), U.S. Army Corps of Engineers (USACE), and California Coastal Commission (California Coastal Commission Sea Level Rise Policy Guidance, 8/12/2015). Since establishment of this guidance, projects located within the Coastal Zone shall be required to incorporate sea-level rise projections in their planning and engineering studies. Consistent with this guidance, floodways, as determined by the Director of Public Works are lands which meet all of the following criteria:

1. The floodway shall include all areas necessary to pass the current and future 100-year flood without increasing the water surface elevation more than one foot (or, in the case of San

Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, upon adoption by the Board of Supervisors of revised floodplain maps which so specify, the increase may not be more than 2/10ths of one foot).

2. The current and future floodway shall include all land area necessary to convey a ten-year flood without structural improvements.
3. To avoid creating erosion and the need for channelization, rip-rap or concrete lining, the floodway may not be further reduced in width when the velocity at the floodway boundary is six feet per second or greater.
4. Floodways are determined by removing equal conveyance (capacity for passing flood flow) from each side unless another criterion controls.
5. Modeling future 100-year flood conditions and floodway extent within the Coastal Zone shall include projections of sea level rise (SLR) for water conditions at the downstream bay and ocean terminus.

Policy 9.27

Floodplains are defined as the relatively flat area of low lands adjoining and including the channel of a river, stream watercourse, bay, or other body of water that is subject to inundation by the flood waters of a 100-year frequency flood as shown on floodplain maps approved by the Board of Supervisors.

Policy 9.28

The development of permanent structures for human habitation or as a place of work shall not be permitted in current or future floodways or floodplains. Uses permitted in a floodway shall be limited to agricultural, recreational, and other such low-intensity uses provided, however, that no use shall be permitted that will create significantly adverse impacts on the environmental resources of a particular floodway area. Permitted uses within floodways must comply with all provisions of the County's LCP.

Policy 9.29

Development within flood prone areas subject to inundation or erosion shall be prohibited unless no alternative building site exists on the legal lot and proper mitigation measures are provided to minimize or eliminate risks to life and property from flood hazard. Using the most updated version of the Sea Level Rise maps, in addition to the 100-year floodplain or floodway, the County shall ensure that permitted development and fill in the 100-year floodplain will not result in an obstruction to flood control and that such development will not adversely affect coastal wetlands, riparian areas, or other sensitive habitat areas within the floodplain, in accordance with the LCP.

Policy 9.30

Using the most updated version of the SLR maps, in addition to the 100-year flood plain or floodway, permitted infill development in the 100-year floodplain shall be limited to structures capable of withstanding periodic flooding without requiring the construction of on or off-site flood protective works or channelization. Proposed development shall be required to incorporate the best mitigation measures feasible pursuant to Public Resources Code Section 30236.

Policy 9.31

Prohibit filling and substantial alteration of streams and diversion or culverting of such streams except as necessary to protect existing structures in the proven interest of public safety, where no other method for protection of existing structures in the flood plain are feasible or where the primary function is to improve fish and wildlife habitat.

Policy 9.32

Ensure that options are identified for protecting existing trails and roads, as well as other infrastructure as it becomes relevant, from sea level rise, storm surge, and riverine flooding. If necessary, identify potential future alignments for relocating roads and trails if existing locations cannot be feasibly protected.

Policy 9.33

Using the most updated version of the Sea Level Rise maps, in addition to the 100-year floodplain or floodway, require all proposed development to be set back from the floodway in accordance with the County’s LCP related to floodways and floodplains so that it is outside any areas where the Director of Public Works has determined that the potential for erosion or sedimentation in the floodplain is significant.

Policy 9.34

The County shall maintain and periodically update maps of potential flood extents as influenced by sea level rise over a 100-year period. Updates to the maps shall reflect the current best available science on sea level rise impacts and projections, and shall reflect the effects of any restoration projects that may impact tidal flow within the San Elijo Lagoon Ecological Reserve.

9.3.5 Miscellaneous

Policy 9.35

An emergency Coastal Development Permit shall include an expiration date of no more than one year and the necessity for a subsequent non-emergency Coastal Development Permit application, if it is determined that:

- 1) An emergency exists that requires action more quickly than permitted by the procedures for a Coastal Development Permit and the work can and will be completed within thirty (30) days unless otherwise specified by the terms of the Coastal Development Permit.
- 2) Public comment on the proposed emergency action has been reviewed, if time allows.
- 3) The work proposed would be consistent with the requirements of the certified LCP.
- 4) The emergency action is the minimum needed to address the emergency and shall, to the maximum extent feasible, be the least environmentally damaging temporary alternative. Prior to expiration of the emergency Coastal Development Permit, if required, the permittee must submit a non-emergency Coastal Development Permit application for the development even if only to remove the development undertaken pursuant to the emergency Coastal Development Permit and restore the site to its previous condition.
- 5) All emergency permits shall be conditioned and monitored to ensure that all authorized development is approved under a regular Coastal Development Permit in a timely manner, but in no case greater than one year.

10 List of Acronyms and Abbreviations

BMP	Best Management Practice
CCC	California Coastal Commission
CCT	California Coastal Trail
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CESA	California Endangered Species Act
cm	centimeter
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
Coastal Act	California Coastal Act of 1976
County's Coastal Zone	County of San Diego's Coastal Zone
CP	Community Plan
CRPR	California Rare Plant Ranks
CTMP	Community Trails Master Plan
CoSMoS	Coastal Storm Modeling System
CZ	Coastal Zone
DPR	County of San Diego, Department of Parks and Recreation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ENSO	El Niño Southern Oscillation
ESA	Endangered Species Act
ESHA	Environmentally Sensitive Habitat Area
FEMA	Federal Emergency Management Agency
GP	General Plan
GIS	Geographic Information System
General Plan	San Diego County General Plan
I-5	Interstate 5
IP	Implementation Plan
LCP	Local Coastal Program
LCP Update Report	County of San Diego Local Coastal Program Update Existing Conditions, Vulnerability and Risk, and Key Issues Report
LID	Low Impact Development
LUP	Land Use Plan
MHHW	mean higher high water
MLLW	mean lower low water
MSCP	Multiple Species Conservation Program
MWD	Metropolitan Water District of Southern California
NOAA	National Oceanic and Atmospheric Administration
NAVD88	North American Vertical Datum of 1988
NRC	National Research Council
NPDES	National Pollution Discharge Elimination System Permit
OHP	California Office of Historic Preservation
Park	San Dieguito Regional Park
PDO	Pacific Decadal Oscillation
PDS	County of San Diego Planning & Development Services Department

PRC	Public Resources Code
RCA	Resource Conservation Area
RWQCB	Regional Water Quality Control Board
SCIC	South Coastal Information Center
SD	San Diego County
SDCWA	San Diego County Water Authority
SLR	sea level rise
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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Appendix A

CLIMATE CHANGE VULNERABILITY AND RISK ASSESSMENT

APPENDIX A

Climate Change Vulnerability and Risk Assessment

According to the California Coastal Commission’s (CCC) Sea Level Rise (SLR) Policy Guidance (CCC 2015), to be consistent with the Coastal Act hazard avoidance and resource protection policies, it is critical that local governments with coastal resources at risk from sea level rise certify or update Local Coastal Programs (LCPs) that provide a means to prepare for and mitigate these impacts. The CCC recommends the following six steps to address sea level rise as part of the development of an LCP.

1. Choose range of SLR projections relevant to LCP planning area
2. Identify potential SLR impacts in LCP planning area
3. Assess risks to coastal resources and development in planning area (i.e., identify problem areas)
4. Identify adaptation measures and LCP policy options
5. Draft updated or new LCP for certification with the CCC
6. Implement LCP and monitor and revise as needed

As part of the process to develop the Land Use Plan (LUP), a report was prepared addressing steps 1 through 3 above, entitled *County of San Diego Local Coastal Program Update Existing Conditions, Vulnerability and Risk, and Key Issues Report*. The climate change vulnerabilities and risk section of the report is presented below.

1.1 Sea Level Rise Projections

The following section summarizes SLR projections relevant to the County’s CZ. The selected SLR scenarios were developed through a review of the CCC’s SLR Policy Guidance (CCC 2015) and other local and regional SLR planning efforts conducted to date within the County. AECOM concluded that there are currently no consistently applied SLR scenarios within the County based on review of these prior studies. The majority of prior studies were performed prior to finalization of the CCC’s recently adopted SLR Policy Guidance in August 2015 and therefore reflect the available guidance at the time of each study.

SLR Ranges and Scenarios

The 2015 CCC SLR Policy Guidance recommends use of the best-available SLR science for the California coast when addressing SLR in LCPs. The National Research Council’s (NRC) 2012 report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, Future*, is currently considered the “best available science” by climate scientists. The years 2030, 2050, and 2100 were selected as the planning time horizons for the SLR vulnerability and risk assessment for the San Diego County LCP update for consistency

with NRC planning horizons, to allow for evaluation of assets with a range of service lives, and to facilitate identification of trigger points for SLR impacts. NRC SLR projections were adopted for evaluation as part of the SLR vulnerability and risk assessment conducted for the San Diego County LCP update. NRC’s 2012 report provides three different SLR scenarios: low-range (or best-case), mid-range, and high-range. These scenarios represent a range of possible futures. Use of the lowest projections is not recommended for planning purposes, since robust planning generally requires use of more conservative futures than best-case scenarios. AECOM evaluated the mid-range and high-range SLR scenarios as part the vulnerability and risk assessment. These projections are shown in Table 7 and Exhibit 1.

Table 7. NRC (2012) Regional Sea Level Rise Projections for Southern California

	NRC (2012) SLR Projections California – South of Cape Mendocino Region	
Year	Mid-Range (inches)	High-Range (inches)
2030	6	12
2050	11*	24
2100	37	66

Note:*An SLR value of 12 inches was adopted for the 2050 mid-range projection for the vulnerability and risk assessment because the risks at 11 and 12 inches of SLR would be comparable and a 12-inch SLR amount can represent the 2030 high-range and 2050 mid-range scenarios using a single value. *Source: NRC (2012) – Table 5.3, Regional Sea-Level Rise Projections Relative to Year 2000 for the Los Angeles Tide Station*

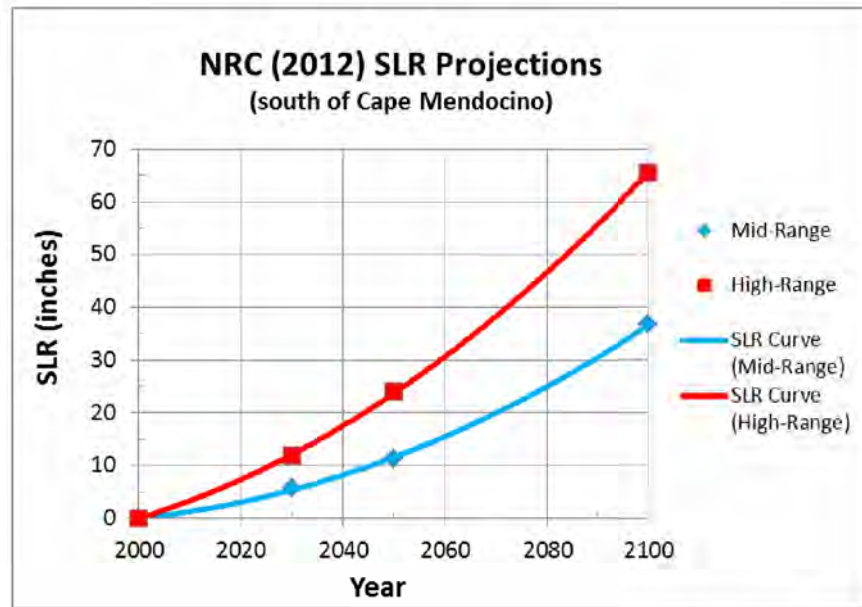


Exhibit 1. NRC (2012) Sea Level Rise Projections for Southern California

1.2 Potential Physical SLR Impacts

The following sections discuss potential SLR impacts to physical hazards, such as local water conditions, historical and future shoreline change, and water quality.

1.2.1 Existing Local Water Conditions

a. Tides

Coastal water levels fluctuate naturally throughout the day due to astronomical tides caused by the gravitational pull of the moon and sun. The San Diego coast experiences two high and two low tides each day, which vary in height over time. The largest annual tides, often referred to as King Tides, occur approximately 4 to 5 days each year. King Tides produce ocean levels that are approximately 1 foot higher than average high tides.

Tide elevations along the coast are typically measured relative to a vertical datum—a baseline position against which other elevations may be related. Tidal datums are defined by a certain phase of the tide, for example, mean higher high water (MHHW) or mean sea level. Tidal datums are calculated by the NOAA over a standard 19-year period of observation. The North American Vertical Datum of 1988 (NAVD88) is the current national standard reference datum. Tides along the San Diego open coast are characterized by NOAA’s recorded water levels at the La Jolla tide station. Table 8 shows NOAA’s published tidal datums and extreme tide estimates from the Federal Emergency Management Agency (FEMA) (BakerAECOM 2015). The diurnal tide range (height from MHHW to mean lower low water [MLLW]) is approximately 5.3 feet, although extreme tides can reach heights of nearly 8 feet.

Table 8. Tidal Datums and Extreme Tides at La Jolla, CA Tide Station

Water Level	Feet MLLW	Feet NAVD88
100-year Tide	7.93	7.74
50-year Tide	7.78	7.59
10-year Tide	7.46	7.27
Highest Observed Tide	7.66	7.47
Highest Astronomical Tide	7.14	6.95
Mean Higher High Water (MHHW)	5.32	5.13
Mean High Water (MHW)	4.50	4.31
Mean Tide Level (MTL)	2.75	2.56
Mean Sea Level (MSL)	2.73	2.54
Mean Low Water (MLW)	0.90	0.71
Mean Lower Low Water (MLLW)	0.00	-0.19

Source: NOAA Tides and Currents La Jolla, CA Tide Station (#9410230) and BakerAECOM (2015)

High tides propagate from the open coast through the mouth of San Elijo Lagoon, but tidal exchange and flushing are impeded by four constrictions or barriers within the lagoon: Highway 101, the railroad bridge, I-5, and the CDFW dike. These barriers divide the lagoon into three distinct basins (west, central, and east) and mute the tide range within the lagoon so that high tides are lower and low tides are higher than along the open coast. The CDFW dike extends from north to south across the marsh and is the primary constraint on tidal flows reaching the upstream reaches of the lagoon. The CDFW dike and constriction at I-5 also impound freshwater discharge from Escondido and La Orilla Creeks. The east basin is primarily freshwater influenced as a result. The reduced tide range and impoundment of freshwater discharge produce a variety of transitional marsh habitats, including riparian, freshwater, brackish, and salt marsh. The distribution of these habitats depends on ground elevation, inundation regime, and water salinity.

b. Water Level Changes from Storms, PDO, ENSO, and Basin Phenomena

Many factors influence ocean water levels, including storm surge, ocean swell, wind waves, the El Niño Southern Oscillation (ENSO), the Pacific Decadal Oscillation (PDO), and tsunamis. Each of these factors can raise water levels independently, and two or more may combine to form exceptionally high coastal

waters. Elevated coastal waters along the open Pacific coast will flow into San Elijo Lagoon and elevate water levels within the lagoon as well.

El Niño-Southern Oscillation: California’s coastal water levels are strongly influenced by the large-scale changes in the ENSO cycle. Under normal conditions, global trade winds blow from east to west across the Pacific, moving warm surface water away from the Americas toward the western Equatorial Pacific. Every 2 to 7 years, these winds weaken or reverse, pushing warm, equatorial water toward the Americas, and north along the San Diego coastline. This warmer ocean water expands and coastal waters during El Niño conditions are higher than typical. In addition, El Niño conditions in the Pacific Ocean frequently produce severe winter storms that impact the San Diego coastline because Pacific Ocean storms follow a more southerly route. Because the storm tracks are shifted farther south, waves approach from a more southerly direction, exposing normally protected reaches of shoreline to high water levels and wave hazards.

Pacific Decadal Oscillation: The PDO is a long-term (multi-decadal) ocean-atmosphere cycle of climate variability that shifts the locations of cold and warm water masses in the Pacific Ocean basin and alters the path of the jet stream. It is similar to ENSO, but it occurs over a longer time scale. The “warm” phase of the PDO is characterized by warmer than normal water temperatures in the eastern North Pacific and a more southerly jet stream. The “cool” phase of the PDO is characterized by cooler than normal water temperatures in the eastern North Pacific and a more northerly jet stream.

Coastal Storms: Large storm systems can impact the San Diego coast during the winter season. These storms are typically characterized by low barometric pressure and strong winds, which produce storm surge, and are accompanied by large powerful waves. Storm characteristics such as wind speed, water level, and wave height are often described statistically using a concept referred to as the “return period” such as a “100-year wave run-up elevation.” It is important to note that a 100-year storm does not occur once every 100 years, but rather has a 1% chance of occurring in any given year. Therefore, it is possible to experience two 100-year storm events in a single year, or have a period of greater than 100 years without a 100-year storm.

Table 9 presents factors that may contribute to extreme water levels along the San Diego coast.

Table 9. Processes That Temporarily Elevate Coastal Waters along the San Diego Coast

Factors Affecting Water Level	Typical Range	Duration of Impact	Frequency
King Tides	1 to 1.3 feet above MHHW	Hours	2 to 4 times each year
Storm Surge	0.5 to 2 feet	Days	Several times each year
Storm Waves	10 to 15 feet	Hours to Days	Several times each year
El Niño	0.5 to 1 feet	Months	Every 2 to 7 years
Pacific Decadal Oscillation	Unknown	20 to 30 years	Decades

c. Wave Impacts

Wave impacts from wave runup occur during coastal storm events along coastlines exposed to high tides, storm surge, and ocean storm waves. Since the County's CZ is located landward of the Pacific coastline, it is not exposed to these hazards.

d. Flooding from Extreme Events

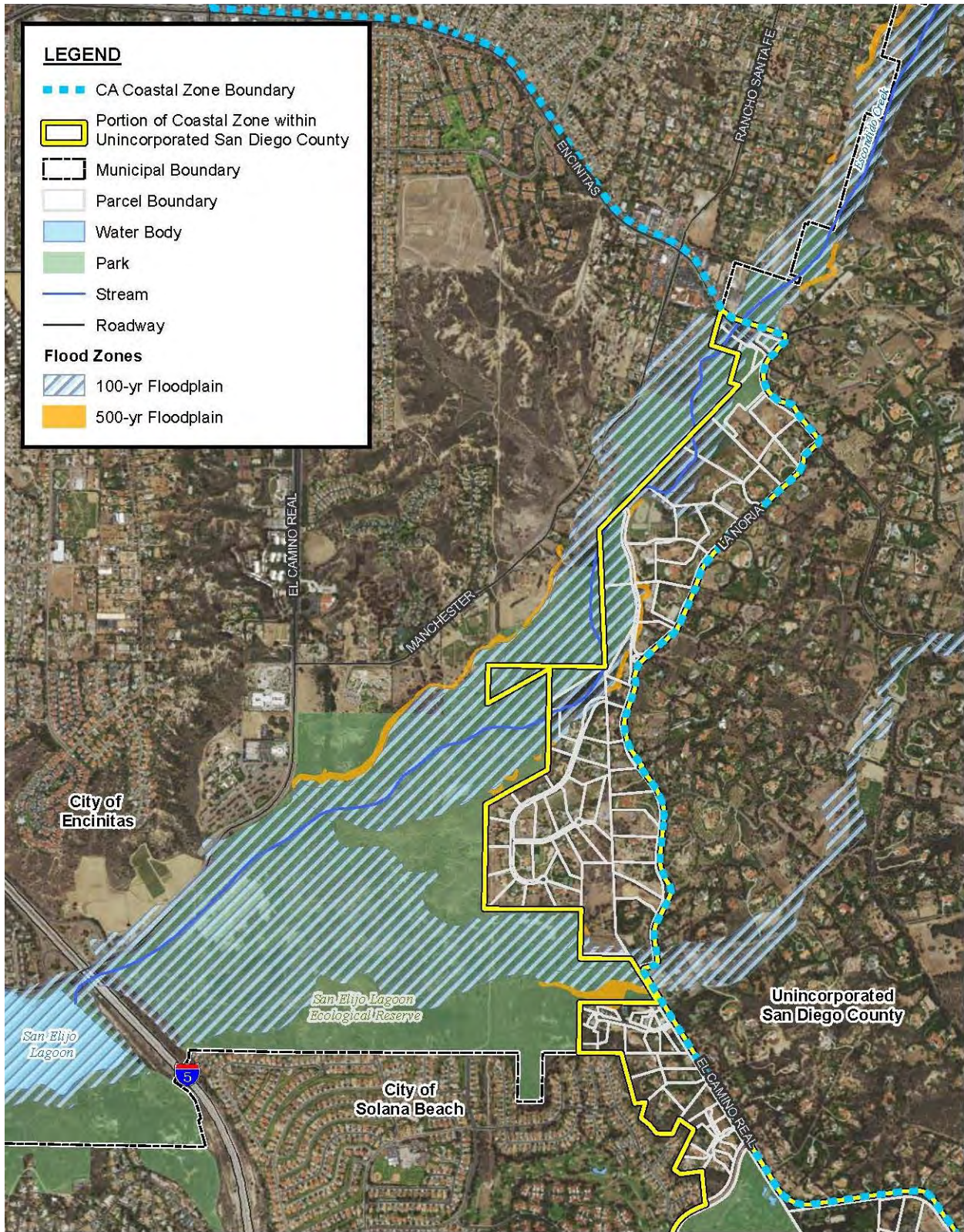
The County's CZ is subject to flooding from extreme events from a number of sources: (1) extreme tide flooding from the Pacific Ocean, (2) riverine flooding from watershed runoff, and (3) tsunami runup and inundation from local and distant seismic events. Potential sources of existing conditions flooding due to extreme events within the County's CZ are discussed below.

Extreme Tidal Flooding: Extreme tidal flooding along the open coast is a relatively rare occurrence that results from the combination of high astronomical tides coupled with other factors such as storm surge and/or El Niño conditions (Table 9). These factors elevate high tides above normal levels and can result in temporary flooding of low-lying areas along the shoreline. Extreme tides along the San Diego open coast do not have the potential to reach inland areas of the County's CZ except within San Elijo Lagoon. Extreme tides along the San Diego open coast will propagate through the lagoon mouth, overtop the CDFW dike, and flood the upstream reaches of San Elijo Lagoon Ecological Reserve at its boundary with the County's CZ. Statistical analysis of extreme tide levels along the San Diego open coast conducted by FEMA (Table 8) estimated the 100-year tide level to be approximately 7.7 feet NAVD88. Low-lying coastal resources and assets exposed to extreme tides would experience temporary flooding by saltwater. High waters within

the lagoon drain to the ocean over subsequent low tides. Given the inland and upland location of the County's CZ, extreme tides do not impact the County's CZ under existing conditions.

Riverine Flooding: Riverine flooding within the County's CZ occurs as a result of freshwater discharge during heavy precipitation events. Portions of the County's CZ are immediately adjacent to and contained within the FEMA Special Flood Hazard Area along Escondido and La Orilla Creeks. The Escondido Creek watershed is much larger in size and therefore represents the primary source of riverine flooding within the County's CZ. Freshwater discharge from Escondido and La Orilla Creeks enters San Elijo Lagoon prior to draining to the ocean. The CDFW dike impounds freshwater discharge within the east basin of San Elijo Lagoon Ecological Reserve. Modeling conducted as part of the San Elijo Lagoon Restoration Project EIR/EIS estimated the 100-year riverine flood level in the east basin to be approximately 14 to 15 feet NAVD88 (Moffatt & Nichol 2012)—approximately 6 feet higher than the 100-year tide level. Floodwaters within the lagoon can completely fill the east basin and freshwater conditions can remain for approximately 1 week following a storm (Moffatt and Nichol 2012). Approximately 24 parcels along Escondido Creek upstream of San Elijo Lagoon and within the County's CZ are located within FEMA's 1% (100-year) or 0.2%-annual-chance (500-year) riverine floodplain (Figure 3-1).

Tsunami Inundation: Tsunamis are ocean waves with very long wavelengths that are generated from geologic events such as earthquakes, landslides, and volcanic eruptions. The California coast is exposed to tsunami hazards from local sources within the Southern California Bight and distant sources such as the Pacific Northwest, Aleutian Islands, Japan, and Kuril Islands. The State of California (2009) evaluated potential tsunami inundation hazard zones along the California coast and developed exposure maps for emergency planning purposes. Tsunami hazard zones within San Elijo Lagoon are depicted on the Encinitas Quadrangle; however, the tsunami inundation area does not extend landward of I-5 so impacts to the County's CZ would be negligible.



Source: SanGIS 2016; NAIP 2014; FEMA Map Service Center.

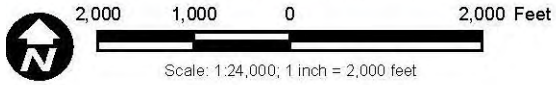


Figure 1-1
FEMA Special Flood Hazard Areas

1.2.2 Future Local Water Conditions

Future coastal and riverine flood risks may be magnified by the effect of future climate change. As sea levels rise, the frequency and magnitude of tidal flooding will increase. Higher sea levels may also exacerbate riverine flooding because higher water levels at the coast may impede drainage of freshwater discharge from lagoons and creeks. Other aspects of climate change, such as changes in storm frequency and intensity, may change the nature of coastal and watershed storm events in the future.

The following coastal and riverine flood hazards may increase as a result of climate change:

Daily tidal inundation: As sea level rises, the amount of land and infrastructure subjected to daily inundation by high tides will increase. The County's CZ is relatively high in elevation compared to typical daily high tide elevations and currently does not experience adverse impacts of tidal flooding. However, as seas rise, previously dry or rarely inundated areas may be reached with increased frequency. This will result in the conversion of transitional or upland areas to tidal wetland within the upper reaches of San Elijo Lagoon Ecological Reserve, but daily tidal inundation is not anticipated to occur within the County's CZ under the SLR scenarios and with the proposed restoration actions evaluated in this report.

Annual high tide inundation (King Tides): King Tides are abnormally high, predictable astronomical tides that occur approximately two to four times per year. As seas rise, the elevation of King Tides will rise concurrently. When King Tides occur coincident with storm waves, coastal flood and erosion impacts are more likely to occur; however, these conditions are not anticipated to occur within the County's CZ under the SLR scenarios and proposed restoration actions evaluated in this report.

Extreme tides: Extreme tides refer to any temporary ocean water level above the predicted (astronomical) daily high tide (not including wave effects). They occur as a combination of high astronomical tides, storm surge, and El Niño effects (see Table 9). As seas rise, the elevation of extreme tides will rise concurrently. The impact of future extreme tides on the County's CZ is discussed in Section 3.3 (Potential Risks for Sea Level Rise to Coastal Resources and Development) of this report.

Storms and El Niño: Climate change may affect the frequency and intensity of coastal storms, El Niño cycles, and related processes. A clear consensus has not yet fully emerged on the nature of these changes in the Pacific Ocean and this is an area of active research.

Shoreline change and coastal erosion: The San Diego County coastline has undergone natural and manmade alterations that have impacted natural shoreline change processes. The long-term cumulative effects of tides, waves, and SLR generally results in the landward migration of the shoreline; however, there is much variability depending on location and time period. A general consensus among the scientific community is that SLR will increase long-term rates of shoreline change although the exact nature of that increase is not well understood and this is an area of active research. The County's CZ is located inland from the open coast, and long-term shoreline change and coastal erosion will not directly impact coastal resources and assets in the County's CZ. However, resources and assets located along the open coast that are utilized by residents of unincorporated areas of San Diego County may be impacted.

Riverine flooding: SLR may exacerbate riverine flooding by raising flood levels along tidally influenced creeks and streams; however, a detailed assessment of the impact of SLR, changes in land use (such as

future development), and climate change¹ on riverine flood hazards along Escondido and La Orilla Creeks has not been conducted to date.

Tsunami inundation: The effect of SLR on tsunami hazards is an area of active research. SLR will increase the base tide level upon which tsunami waves propagate and therefore may increase the extent of inland inundation by tsunamis; however, local topography and wave dynamics are also important factors. A detailed assessment of the impact of SLR on tsunami hazards has not been conducted to date.

Planning is currently underway to implement a restoration project within San Elijo Lagoon Ecological Reserve (San Elijo Lagoon Conservancy 2016). The proposed project would make improvements to the mouth of the lagoon and interior channel network, and would reduce existing flow constrictions that currently restrict tidal exchange and flushing of the lagoon and degrade habitat quality. The proposed improvements would promote more efficient lagoon hydraulics and increase tidal influence in the east basin. These changes would effectively unmute tides within the upper reaches of the lagoon so that high tides would be higher and low tides would be lower. In addition, reduction of flow constrictions within the lagoon would reduce impoundment of freshwater during watershed flooding events and reduce the potential for riverine flooding along Manchester Avenue. The proposed restoration actions are relevant to the County's CZ because they will change the riverine and coastal flood levels within the east basin of San Elijo Lagoon Ecological Reserve. Increased tidal influence will likely increase coastal flood risk by allowing extreme high tides to propagate farther upstream, while reduction in flow constrictions will likely decrease riverine flood risk by reducing impoundment and ponding of freshwater discharge.

1.2.3 Shoreline Change

a. Historical Shoreline Change

Shoreline change is a complex process that can occur on a variety of time scales, ranging from individual storm events to multi-decadal climatic cycles, and can result in either retreating or advancing shorelines. Short-term shoreline change generally consists of episodic, storm-induced erosion or human alterations (e.g., beach nourishments or placement of coastal protection or sand retention structures). Long-term shoreline change is typically facilitated by natural or human-induced changes in sediment budget, longshore and cross-shore sediment transport, wave climate, SLR, surface runoff, and groundwater processes (Hapke et al. 2006; Hapke and Reid 2007). The USGS National Assessment of Shoreline Change estimated historical rates of change along sandy and cliff shorelines in Encinitas, Cardiff, and Solana Beach. Results indicated that shorelines remained fairly stable over the long term (1887–1998) but moderately erosional over the short term (1972–1998).

¹ Effects of climate change on riverine flood hazards include changes in storm characteristics such as magnitude, intensity, and duration.

b. Future Shoreline Changes

While historical rates of shoreline change can be estimated from careful measurements of aerial photographs and topography changes, no standard methodology exists to predict future rates of shoreline change. Coastal engineers apply a variety of methods and techniques to incorporate the effects of SLR on shoreline response. The simplest approach is to project historical rates of shoreline change into the future; however, there is broad consensus among scientists that SLR will increase the rate of shoreline retreat above historical values. Uncertainties in future management scenarios further complicate future projections of shoreline change. The U.S. Geological Survey (USGS) recently completed a study of long-term shoreline evolution in southern California for sandy beaches and bluffs using the Coastal Storm Modeling System (CoSMoS). Initial future shoreline positions corresponding to SLR scenarios of 0.5 meter (1.6 feet), 1.0 meter (3.3 feet), 1.5 meters (4.9 feet), and 2.0 meters (6.6 feet) are available for public use. Additional scenarios will be available at the end of 2016.

Shoreline change within San Elijo Lagoon Ecological Reserve will occur due to the increased extent of tidal influence as a result of SLR and the proposed restoration actions. The tidally influenced footprint of the lagoon will increase gradually over time as high tides reach higher elevations and the lagoon expands. These potential shoreline changes within the lagoon are discussed here for context and are not anticipated to impact the County's CZ.

1.2.4 Water Quality

a. Saltwater Intrusion

Saltwater intrusion into aquifers can occur when freshwater aquifers have a direct connection to the ocean or other saltwater source (such as a lagoon or estuary system). The extent of saltwater influence within freshwater aquifers depends on the balance between dense saltwater intruding from the ocean side and the characteristics of the freshwater aquifer, including subsurface geology, elevation of the water table, volume and rate of groundwater withdrawal, and rate of recharge.

The extent of saltwater intrusion into a freshwater aquifer is affected by the relative difference between water levels in the ocean and the aquifer. Typically, groundwater elevations are higher than mean sea level and groundwater flows toward the coast, effectively blocking intrusion of saltwater into the aquifer. When the relative difference between the ocean and the groundwater level decreases—due to drawdown of the aquifer by pumping, or raising of mean sea level due to SLR—the interface between saltwater and freshwater can move inland. Once saltwater intrudes into a freshwater aquifer, it can be very difficult and costly to remove.

San Elijo Lagoon is underlain by the San Elijo Valley Groundwater Basin, which has been identified as a potential source of potable water. The basin comprises a surface alluvial aquifer directly underlying the lagoon and a deeper aquifer. The basin is unconfined and exchange occurs between the aquifer and the overlying lagoon and adjacent ocean waters. Natural recharge of the alluvial aquifer is primarily through percolation from Escondido Creek. Infiltration from direct precipitation and agricultural and residential uses contributes additional recharge (DWR 2004).

Increased tidal exchange and shifts in salinity regime that would occur as a result of SLR and proposed restoration actions are not predicted to cause a substantial change in conditions that influence groundwater quality and/or recharge characteristics within the County's CZ (although seawater intrusion may impact the groundwater basin in the area west of I-5). The groundwater aquifer is at depths substantially lower than the alluvial aquifer directly underlying the lagoon and exchange between the lagoon and groundwater is believed limited to the alluvial aquifer (San Elijo Lagoon Conservancy 2016).

b. Coastal Water Pollution

Potential effects of SLR on coastal water pollution are typically the result of failure of wastewater infrastructure as a result of exposure to erosion and flood conditions. AECOM did not identify any critical wastewater infrastructure exposed to SLR impacts within the County's CZ, thereby concluding that increased risk of coastal water pollution as a result of SLR is minimal.

1.3 Potential Risks for Sea Level Rise to Coastal Resources and Development

In addition to direct exposure to coastal flooding and erosion as a result of SLR, coastal communities may also be at risk of, and indirectly affected by, impairment of critical infrastructure and services. Within the County's CZ, SLR impacts could directly damage, destroy, or temporarily interrupt critical infrastructure including roads and water, wastewater, and power supply systems. Temporary or permanent loss of such facilities would have indirect, but serious, impacts to coastal residents. This section evaluates direct and indirect impacts² to:

Existing and planned development, including residential and commercial property

Vulnerable public facilities, such as schools, post offices, libraries, or community centers

Critical infrastructure, including transit, water and wastewater, and power

Public access, including beaches, recreation areas, and coastal trails

Environmentally sensitive habitats and sensitive marine species, such as seals and sea lions and sensitive coastal bird species.

The County's CZ is generally located landward and upland of coastal oceanographic processes that are typically evaluated as part of a SLR vulnerability and risk assessment, such as waves, tides, storm surge, coastal storm erosion, and long-term shoreline change. Discussion of physical SLR impacts will therefore be limited to the upstream reaches of San Elijo Lagoon at the confluence of Escondido and La Orilla Creeks, where portions of the County's CZ have the potential for exposure to SLR impacts.

² Residents of the County's Coastal Zone (CZ) rely on critical infrastructure that is located outside of the study area (for example, power and wastewater treatment facilities). Sea level rise impacts to these assets were not evaluated as part of this assessment.

1.3.1 Exposure Analysis

AECOM evaluated potential risks of SLR to coastal resources and development within the County's CZ through the creation of inundation and flooding exposure maps. The mapping effort focused on the upstream reaches of San Elijo Lagoon Ecological Reserve and its boundary with the County's CZ. The inundation maps were developed using a 1-meter digital elevation model created from high-resolution coastal Lidar data obtained from NOAA. Each SLR scenario (Table 7) was combined with the estimated daily high tide (MHHW) and extreme tide (100-year tide) water levels to estimate future inundation and flooding extents within the County's CZ. The future conditions water level scenarios are shown in Table 10. The evaluated scenarios assume full tidal exchange between the lagoon and the Pacific Ocean because the exact nature of the lagoon response to SLR and proposed restoration actions is unknown. The inundation maps do not take into account detailed hydraulics, storm duration, and other elements that affect the extent of inundation, such as constrictions and overland flow. The inundation maps therefore represent a conservative estimate of tide levels and any potential increase of these levels due to restoration activity in the lagoon. Hydrodynamic modeling conducted as part of the San Elijo Lagoon Restoration Project EIR/EIS found that all proposed restoration alternatives would increase the high tide range within the east basin of the lagoon; however, the exact response will depend on a variety of natural and anthropogenic factors. Actual future daily high tide and extreme tide elevations may be less than shown in Table 10 depending on future management and geomorphic evolution of the lagoon.

Table 10. Future Conditions Daily High Tide and Extreme Tide Sea Level Rise Scenarios

Sea Level Rise (inches)	Daily High Tide (MHHW) (feet NAVD88)	Extreme Tide (100-yr tide) (feet NAVD88)	Sea Level Rise Scenario
Existing	5.1	7.7	-
6	5.6	8.2	2030 mid
12	6.1	8.7	2030 high, 2050 mid
24	7.1	9.7	2050 high
37	8.2	10.8	2100 mid
66	10.6	13.2	2100 high

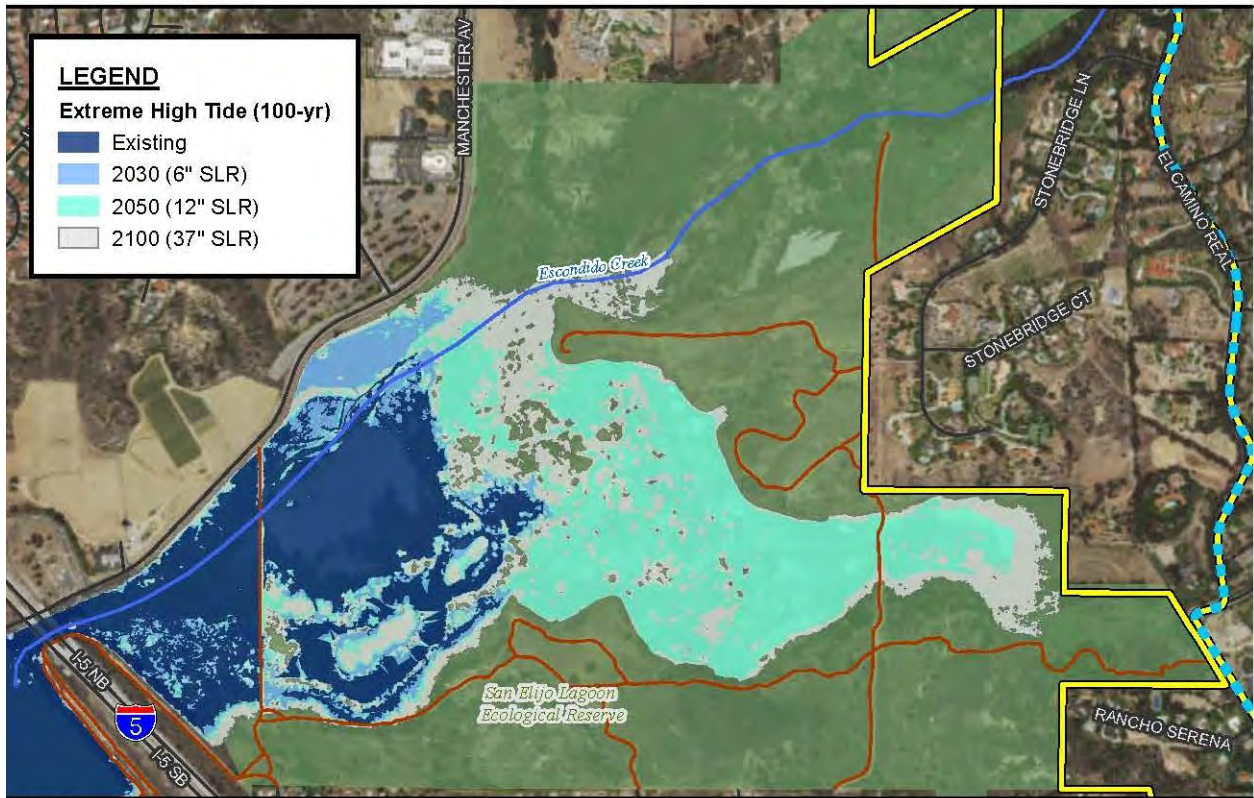
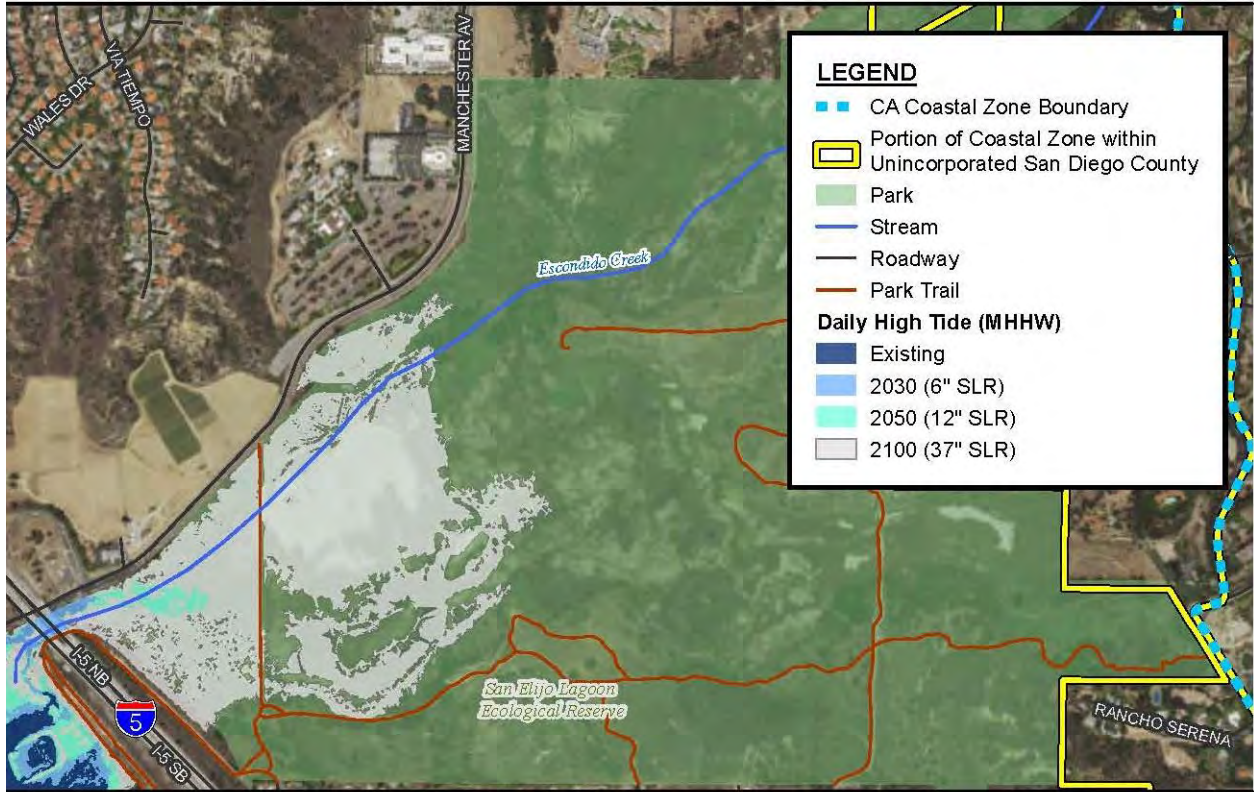
The future inundation and flooding maps for the County's CZ are shown in Figures 3-2 and 3-3, respectively, for the mid-range and high-range SLR scenarios (see NRC SLR scenarios Table 7).

AECOM also evaluated future exposure to combined coastal and riverine flooding using modeling results from the USGS CoSMoS study.³ The CoSMoS modeling results are shown in Figure 3-4⁴. The USGS modeling evaluated combined flooding from a future conditions 100-year coastal storm event with SLR and a likely coincident riverine discharge event⁵. The results suggest that the flow constriction at I-5 impounds freshwater discharge in the lagoon and that flood levels in the east basin do not increase as a result of SLR; however, the combined effects of an extreme freshwater discharge event (e.g., 100-year discharge) and SLR were not evaluated. These findings are consistent with modeling completed for the San Elijo Lagoon Restoration Project EIR/EIS (Moffatt & Nichol 2012), which showed elevated flood levels within the east basin due to impoundment of freshwater behind the CDFW dike and I-5 embankment.

³ Note that the U.S. fore do not exactly align with the adopted National Research Council SLR scenarios used to produce the inundation maps presented in Figures 3-2 and 3-3

⁴ USGS sea level rise scenarios: 50 cm (20 inches), 100 cm (39 inches), 150 cm (59 inches), and 200 cm (79 inches). The flood extents of the existing and future SLR scenarios overlap in the eastern portion of San Elijo Lagoon Ecological Reserve, indicating that SLR does not influence the extent of riverine flooding east of Interstate 5.

⁵ The USGS modeling scenarios were intended to capture future flooding associated with the 100-year coastal storm event. Freshwater discharge was included in the coastal storm modeling because the same storm systems that contribute to coastal flooding are often accompanied by watershed precipitation. The return period of the freshwater discharge event modeled with the coastal storm conditions is not known and represents a best guess of the discharge that may occur coincident with the 100-year coastal storm event



Source: SanGIS 2016; NAIP 2014; AECOM 2016.

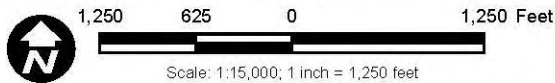
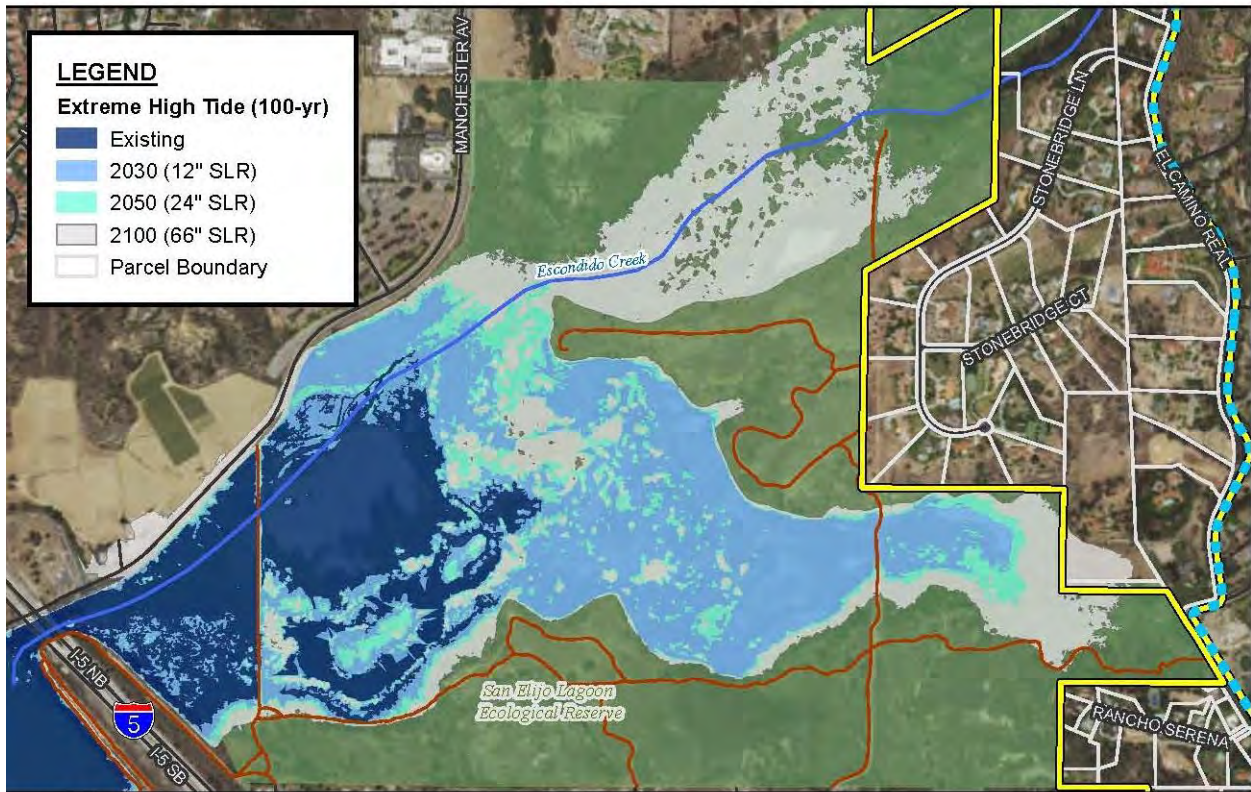
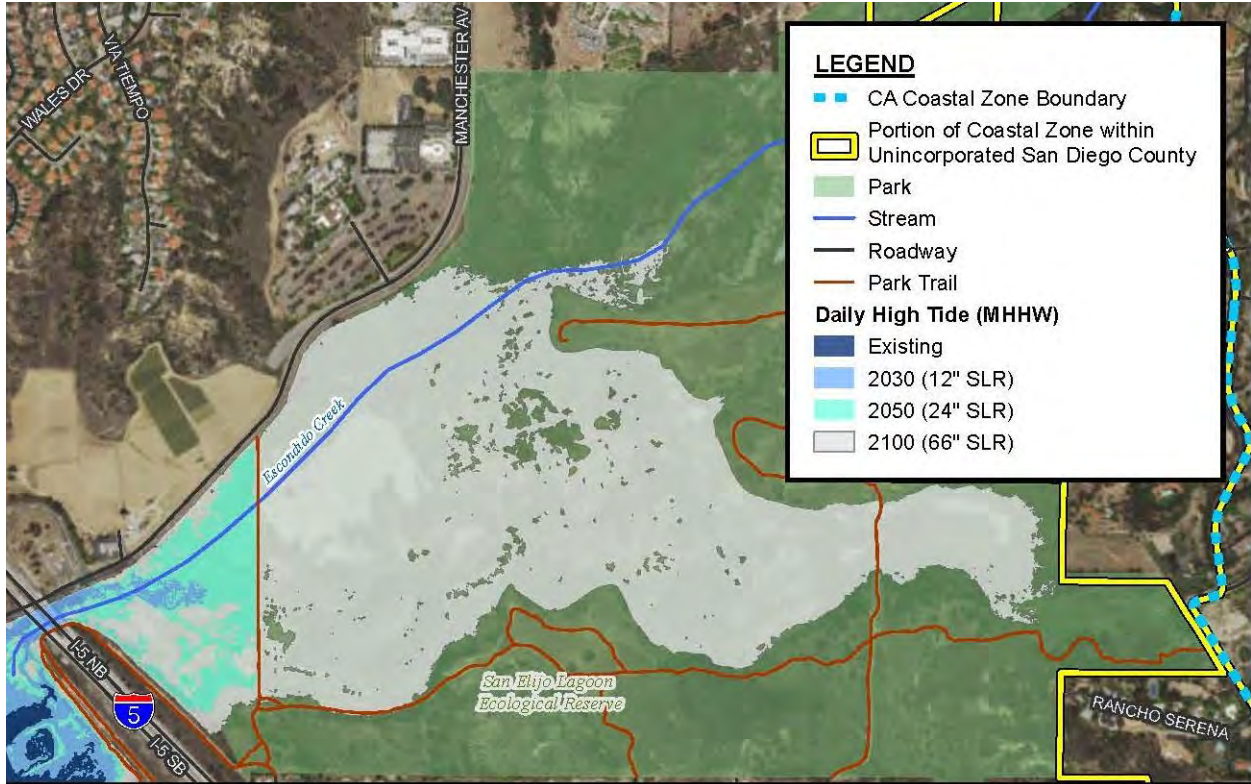


Figure 1-2
San Elijo Lagoon Ecological Reserve
Future Inundation and Flooding (Mid-range SLR)



Source: SanGIS 2016; NAIP 2014; AECOM 2016.

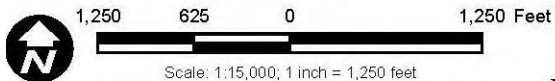
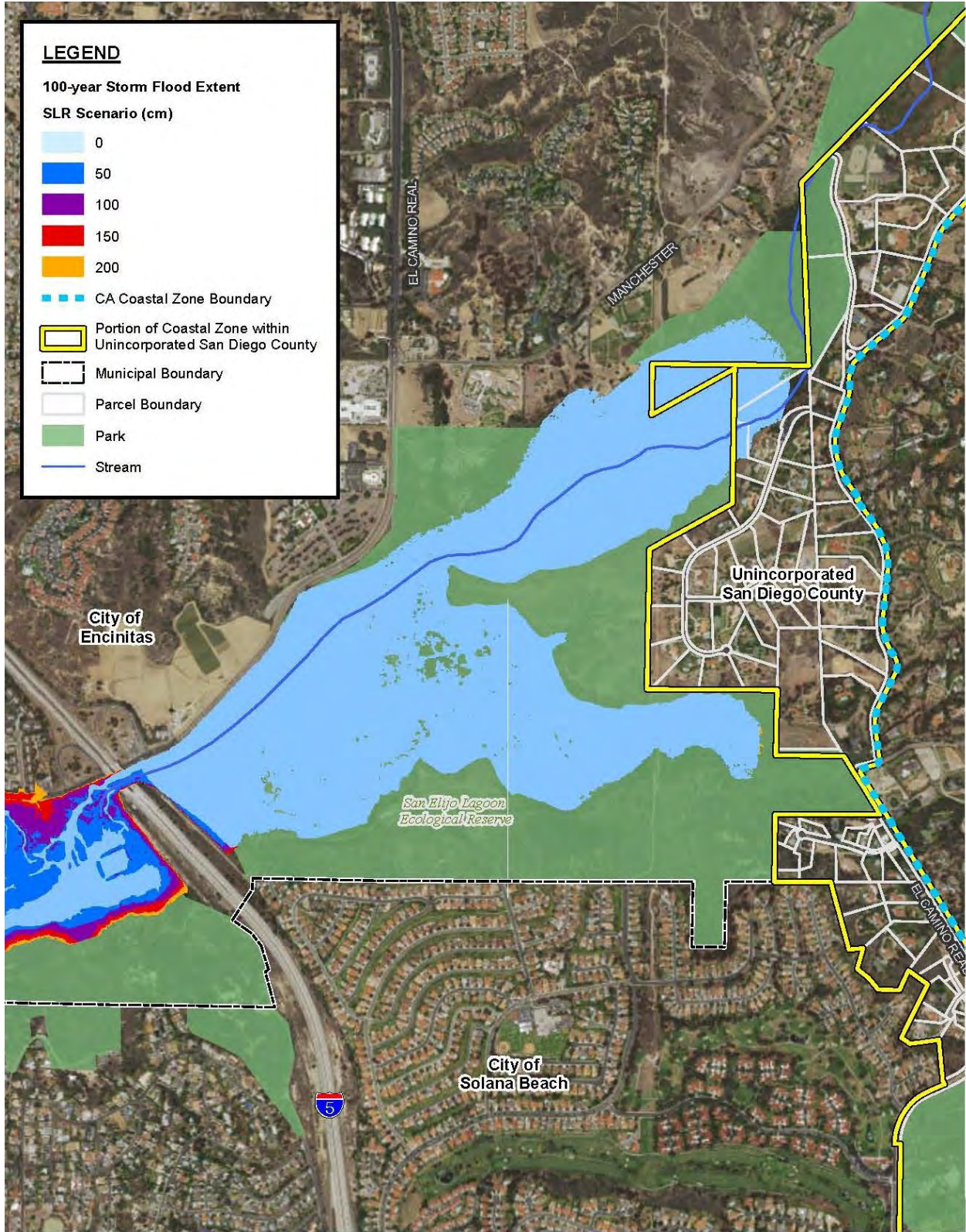


Figure 1-3
San Elijo Ecological Reserve
Future Inundation and Flooding (High-range SLR)



Source: SanGIS 2016; NAIP 2014.

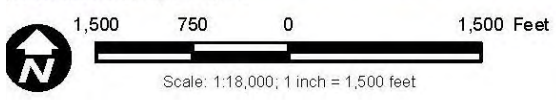


Figure 1-4
USGS CoSMoS Modeling Results within
San Elijo Lagoon Ecological Reserve

1.3.2 Resource Inventory

The full list of coastal resources and assets identified above was screened to identify those that could potentially be exposed to direct and indirect SLR impacts in the future. Potentially exposed assets were identified by overlaying the maximum flood extent for the 100-year extreme tide with 66 inches of SLR⁶ on the resource and asset inventory. Coastal resources and assets that were located within this exposure area were identified for further evaluation. The list of resources below includes those located within the County's CZ and those located immediately adjacent to the County's CZ, which may indirectly impact residents of the County's CZ (for example, transportation routes that provide access from the County's CZ to the coast):

Existing development within the Stonebridge Community along Stonebridge Lane;

Manchester Avenue, east of I-5 and north of San Elijo Lagoon;

ESHAs immediately adjacent to or within the County's CZ; and

San Elijo Lagoon Ecological Reserve trail network.

1.3.3 Vulnerability and Risk

Existing development: Existing development within the County's CZ may be exposed to coastal or riverine flood hazards under future SLR scenarios. Existing development within the County's CZ is generally located landward and upland of the extent of tidal influence, with the exception of one parcel located west of the El Camino Real-La Orilla intersection and near the limit of flooding under the 100-year tide + 66 inches of SLR scenario (Figure 3-3). In general, however, all existing development within the County's CZ is located at an elevation above the predicted future limit of riverine and coastal flooding and is not vulnerable to direct impacts of SLR.

Transportation infrastructure: No transportation infrastructure is located within the County's CZ that falls within the SLR exposure area; however, Manchester Avenue, which runs along the northern boundary of San Elijo Lagoon Ecological Reserve, provides an important transportation route from the County's CZ to I-5, Highway 101, and coastal recreation areas. The 0.4-mile-long portion of Manchester Avenue east of I-5 is at an elevation of approximately 12 feet NAVD88 and is exposed to temporary flooding under the 100-year + 66 inches SLR scenario. Flooding during such an event would inundate the roadway by approximately 1 foot of water for approximately 2 to 3 hours around high tide. Vehicular passage along this stretch of Manchester Avenue may be interrupted during this time and travelers may have to take an alternate route. Adaptation strategies such as elevating the roadway, construction of a low-profile

⁶ The flood extent of the 100-year extreme tide with 66 inches of SLR was used to develop the SLR exposure area because it encompassed the maximum extent of tidal flooding under the end-of-century high-range SLR scenario and covered the functional service life of existing assets

floodwall, or setback of the roadway from the lagoon edge could improve the resiliency of this transportation route in the future.

Environmentally Sensitive Habitat Areas: ESHAs are discussed in Section 2.4.2 (Biological Resources) of this report, with additional information provided in Appendix B. Changes in inundation and salinity regime as a result of SLR and/or proposed restoration actions (which would increase conveyance of tidal waters to upper reaches of the lagoon) could expose some of these existing habitat areas to increasingly saline conditions. Existing wetland habitat adjacent to and downstream of the County’s CZ primarily consists of coastal salt marsh along Escondido and La Orilla Creeks, although a more diverse mix of riparian, brackish, and freshwater marsh exists along Escondido Creek due to larger freshwater inflows. These existing freshwater-influenced habitats (riparian, brackish, and freshwater marsh) within San Elijo Lagoon may convert to more saline habitats such as coastal salt marsh in the future as a result of regular but infrequent flooding by saltwater caused by SLR and improved drainage of freshwater ponding due to proposed restoration actions. This would allow sensitive habitats and species to migrate inland or upland as sea level rises; however, habitat conversion within the County’s CZ is not expected because its higher ground elevations are above the reach of future conditions daily high tides.

San Elijo Lagoon Ecological Reserve trail network: As mentioned in Section 2.4.5 (Recreation and Public Access) of this report, a network of trails provides public access to San Elijo Lagoon Ecological Reserve. The La Orilla trailhead near the El Camino Real-La Orilla intersection provides the only public access point to the lagoon located within the County’s CZ (Figure 2-8). The trailhead is located at an elevation above 20 feet NAVD88 and is not exposed to coastal flooding under the SLR scenarios evaluated for this study; however, portions of the trail network within San Elijo Lagoon Ecological Reserve accessed from this trailhead are impacted by coastal flooding:

North-south cross trail connecting La Orilla and Stonebridge Trails: This trail has low spots at an elevation of approximately 7–8 feet NAVD88 and is first impacted at the MHHW + 37 inches SLR scenario (daily inundation) and 100-year existing conditions scenario (temporary flooding).

CDFW Dike/Levee Trail: This trail has low spots at an elevation of approximately 8 feet NAVD88 and is first impacted at the MHHW + 66 inches SLR scenario (daily inundation) and 100-year + 12 inches SLR scenario (temporary flooding). The proposed restoration action within San Elijo Lagoon would remove the CDFW dike so this impact is only relevant for the without-project scenario.

Trails subject to daily inundation would likely be rendered inoperable unless they were raised or elevated on a boardwalk. Trails subject to infrequent temporary flooding during an extreme tide event may require monitoring and/or more frequent maintenance but could likely remain in service except during storm events.

Appendix B

Wildlife and Plants Tables

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
Invertebrates		
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	ESA: Endangered MSCP: Covered	Deep vernal pool habitat in southern California. May occur in road ruts, vernal pools, or other temporarily ponded waters where the water remains ponded for several weeks.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	ESA: Endangered MSCP: Covered	Vernal pool habitat in southern California. May occur in road ruts, vernal pools, or other temporarily ponded waters.
wandering (saltmarsh) skipper <i>Panoquina errans</i>	MSCP: Covered	Restricted to estuarine and tideland habitats where adults are often associated with salt grass (<i>Distichlis spicata</i>).

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	ESA: Endangered	Primarily scrublands, however adult butterflies will only deposit eggs on species they recognize as host plants including species of <i>Plantago</i> .
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	ESA: Endangered MSCP: Covered	Vernal pool habitat in southern California. May occur in road ruts, vernal pools, or other temporarily ponded waters.
western spadefoot <i>Spea hammondi</i>	CDFW: Species of Special Concern	Temporary ponds, vernal pools, and backwaters of slow-flowing creeks for breeding and upland habitats such as grasslands and coastal sage scrub for aestivation.
western pond turtle	CDFW: Species of Special Concern	Associated with permanent

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
<i>Emys marmorata</i>	MSCP: Covered	water or nearly permanent water from sea level to 6,000 feet. Prefers habitats with basking sites such as floating mats of vegetation, partially submerged logs, rocks, or open mud banks.
coast horned lizard <i>Phrynosoma blainvillii</i>	CDFW: Species of Special Concern MSCP: Covered	A variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands (Stebbins 2003). Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.
coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	CDFW: Species of Special Concern	Inhabits low-elevation coastal scrub, chamise-redshank chaparral,

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		mixed chaparral, and valley-foothill hardwood habitats.
Coronado island skink <i>Eumeces skitonianus interparietalis</i>	CDFW: Species of Special Concern	Most commonly found in open areas, sparse brush, and in oak woodlands, usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs (CDFG 1994).
orange-throated whiptail <i>Aspidoscelis hyperythra</i>	CDFW: Species of Special Concern MSCP: Covered	A variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands (Stebbins 2003). Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.
silvery legless lizard	CDFW: Species of Special Concern	Loose soil in a number of vegetation

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
<i>Anniella pulchra pulchra</i>		communities including coastal dunes; chaparral; pine-oak woodland; and streamside growth of sycamores, cottonwoods, or oaks. Small shrubs such as bush lupine (<i>Lupinus</i> sp.) growing in sandy soils indicate suitable conditions. Occurs often near intermittent and permanent streams.
coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	CDFW: Species of Special Concern	A variety of habitats including coastal sage scrub, chaparral, riparian, grasslands, and agricultural fields. Prefers open habitats with friable or sandy soils, burrowing

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		rodents for food, and enough cover to escape predation.
two-striped garter snake <i>Thamnophis hammondi</i>	CDFW: Species of Special Concern	Aquatic habitats, preferably rocky streams with protected pools, cattle ponds, marshes, vernal pools, and other shallow bodies of water.
red-diamond rattlesnake <i>Crotalus ruber ruber</i>	CDFW: Species of Special Concern	Chaparral, coastal sage scrub, along creek banks, and in rock outcrops or piles of debris. Habitat preferences include dense vegetation in rocky areas.
Birds		
Bell's sage sparrow <i>Artemisiospiza belli belli</i>	CDFW: Watch List USFW: Birds of Conservation Concern	Chaparral and coastal sage scrub.
burrowing owl	CDFW: Species of Special Concern	Prefers grassland and

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
<i>Athene cunicularia</i>	USFW: Birds of Conservation Concern MSCP: Covered	open scrub. Take over the burrows of mammals, especially those of the California ground squirrel (<i>Spermophilus beecheyi</i>) as well as culverts and artificial burrows.
coastal cactus wren <i>Campylorhynchus brunneicapillus sandiegonensis</i>	CDFW: Species of Special Concern MSCP: Covered	Breeds and winters in coastal sage scrub, including prickly pear and/or cholla cacti; found only in coastal and near-coastal portions of California, generally below 3,000 feet.
coastal California gnatcatcher <i>Polioptila californica californica</i>	ESA: Threatened CDFW: Species of Special Concern MSCP: Covered	Diegan coastal sage scrub dominated by California sagebrush (<i>Artemisia californica</i>) and flat-topped buckwheat (<i>Eriogonum fasciculatum</i>)

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		below 2,500 feet elevation in Riverside County and below 1,000 feet elevation along the coastal slope. Generally avoids steep slopes above 25% and dense, tall vegetation for nesting.
California black rail <i>Laterallus jamaicensis coturniculus</i>	CESA: Threatened CDFW: Fully Protected USFW: Birds of Conservation Concern	Found in southern California coastal marshes.
California Clapper Rail <i>Rallus longirostris obsoletus</i>	ESA: Endangered CESA: Endangered MSCP: Covered	Salty and brackish water marshes with pickleweed and cordgrass.
light-footed Ridgway's rail <i>Rallus longirostris levipes</i>	ESA: Endangered CESA: Endangered	Salty and brackish water marshes with pickleweed and cordgrass.

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
	MSCP: Covered	
common Loon <i>Gavia immer</i>	CDFW: Species of Special Concern	Widespread along the coast both in the ocean and within tidal bays and estuaries.
Costa's hummingbird (nesting) <i>Calypte costae</i>	USFW: Birds of Conservation Concern	Primarily found in desert wash, edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent shrub, lower-elevation chaparral, and palm oasis.
Cooper's hawk <i>Accipiter cooperii</i>	CDFW: Watch List (nesting) MSCP: Covered	Known to nest in a variety of woodland habitats including oak, willow, eucalyptus and other large trees that provide suitable cover. May nest in urban riparian vegetation.

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
grasshopper sparrow <i>Ammodramus savannarum</i>	CDFW: Species of Special Concern (nesting)	Arid grasslands with shrubs.
Catalina Hutton's vireo <i>Vireo huttoni</i>	CDFW: Species of Special Concern	Endemic to Catalina, but known to breed in San Diego. Habitat consists of oak woodland (primarily coast live oak), riparian woodland and chaparral habitats (Shuford and Gardali 2008).
Lawrence's goldfinch <i>Spinus lawrencei</i>	USFW: Birds of Conservation Concern	Desert riparian, palm oasis, pinyon-juniper, and lower montane habitats.
least bittern <i>Ixobrychus exilis</i>	CDFW: Species of Special Concern (nesting)	Marsh habitats or large emergent wetlands with cattails (<i>Typha</i> sp.) and tules.
California least tern	ESA: Endangered	A ground nesting bird that

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
<i>Sternula antillarum browni</i>	<p>CESA: Endangered</p> <p>CDFW: Fully Protected (nesting colony)</p> <p>MSCP: Covered</p>	requires undisturbed stretches of beach and coastline. Adults are highly philopatric to natal colonies, and forage in bays and estuaries near their colonies.
Clark’s marsh wren <i>Cistothorus palustris clarkae</i>	CDFW: Species of Special Concern	Year-round resident of coastal freshwater and brackish marshes in coastal southern California.
northern harrier <i>Circus cyaneus</i>	<p>CDFW: Species of Special Concern (nesting)</p> <p>MSCP: Covered</p>	Breeds predominantly in wetland habitats but will also use upland habitats. Prefers grasslands and agricultural fields during migration and in winter.
osprey <i>Pandion haliaetus</i>	CDFW: Watch List	Primarily along rivers, lakes, reservoirs, and

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
	(nesting)	seacoasts, occurring widely in migration, often crossing land between bodies of water. Nests in dead snags, live trees, cliffs, utility poles, wooden platforms, channel buoys, chimneys, windmills, etc. Usually near or above water.
Reddish Egret <i>Egretta rufescens</i>	MSCP: Covered	Salt and brackish water wetlands
southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	CDFW: Watch List MSCP: Covered	Grassy or rocky slopes with open scrub at elevations from sea level to 2,000 feet. Occurs mainly in coastal sage scrub.
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	CESA: Endangered MSCP: Covered	Resident in salt marshes with dense pickleweed, particularly <i>Salicornia virginica</i> , within

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		which most nests are found. Found in areas with tidal flow.
large-billed savannah sparrow <i>Passerculus sandwichensis rostratus</i>	CDFW: Species of Special Concern (wintering) MSCP: Covered	Breeds in open, low salt marsh vegetation, including grasses, pickleweed, and iodine bush (does not breed in North America). Winters along rocky shorelines in Southern California.
tricolored blackbird <i>Agelaius tricolor</i>	CDFW: Species of Special Concern (nesting colony) MSCP: Covered	Breeds near freshwater, especially marshy areas. The most favored sites for colonies are heavy growths of cattails and tules. Winters near pastures, dry seasonal pools, agricultural fields, rice fields, feedlots, and dairies.

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
vermilion flycatcher <i>Pyrocephalus rubinus</i>	CDFW: Species of Special Concern (nesting)	Prefers open riparian woodland, arid lands, and mesquite bosques on desert floodplains. Nests in native trees such as willows and cottonwoods.
western snowy plover <i>Charadrius nivosus nivosus</i>	ESA: Threatened CDFW: Species of Special Concern (nesting) MSCP: Covered	Nests on beaches, dunes, and salt flats in San Diego County, with the highest concentrations in two areas: Marine Corps Base Camp Pendleton and Silver Strand. Outside the breeding season species is more widespread but not common along the county's coast.
white-tailed kite <i>Elanus leucurus</i>	CDFW: Fully Protected (nesting)	Breeds and winters in savanna, open woodlands, marshes, desert

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		grassland, partially cleared lands, and cultivated fields.
golden eagle <i>Aquila chrysaetos</i>	CDFW: Fully Protected (nesting and wintering) MSCP: Covered	Nests on cliff ledges and trees on steep slopes. Hunts for prey in nearby grasslands, sage scrub, or broken chaparral. Requires very large territories.
ferruginous hawk <i>Buteo regalis</i>	CDFW: Watch List (wintering) MSCP: Covered	Does not breed in California. Only winters in San Diego County in open country, primarily plains, prairies, badlands, sagebrush, and shrubland.
Swainson's hawk <i>Buteo swainsoni</i>	CESA: Threatened (nesting) MSCP: Covered	Open grasslands; however it has become increasingly dependent on agriculture, especially alfalfa crops, as native grassland

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		communities are converted to agricultural lands.
prairie falcon <i>Falco mexicanus</i>	CDFW: Watch List (nesting) MSCP: Covered	Forages in open grasslands, agricultural fields, and desert scrub. Prefers ledges on rocky cliffs for nesting.
American peregrine falcon <i>Falco peregrinus anatum</i>	CDFW: Fully Protected (nesting) MSCP: Covered	Nests in open areas from tundra, moorlands, steppe, and seacoasts to mountains and open forested regions, especially where there are suitable nesting cliffs.
light-footed Ridgway's rail <i>Rallus obsoletus levipes</i>	ESA: Endangered CESA: Endangered CDFW: Fully Protected	Found in southern California in coastal salt marshes, especially those dominated by cordgrass. Nearby breeding

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
	MSCP: Covered	locations include San Elijo Lagoon and to the east of the BSA.
long-billed curlew	CDFW: Watch List MSCP: Covered	Tidal mudflats, coastal strand, salt marshes, fallow agricultural fields, and grasslands along the coast. Uncommon migrant and winter visitor to San Diego County.
black skimmer <i>Rynchops niger</i>	CDFW: Species of Special Concern (nesting)	Breeds in loose groups on sand banks or bare dirt areas near water sources. May utilize the same habitat as terns.
burrowing owl <i>Athene cunicularia</i>	CDFW: Species of Special Concern (burrow sites and some winter sites) MSCP: Covered	Breeds and winters in flat, open terrain with soft soil, short grass, sparsely distributed vegetation, or exposed

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		ground. Strongly associated with California ground squirrel burrows.
least Bell's vireo <i>Vireo bellii pusillus</i>	ESA: Endangered CESA: Endangered MSCP: Covered	Riparian woodland with understory of dense young willows or mulefat and willow canopy. Nests often placed along internal or external edges of riparian thickets (Unitt 2004).
California horned lark <i>Eremophila alpestris actia</i>	CDFW: Watch List	Found year-round in coastal strand, grasslands, and sandy deserts of San Diego County. This species requires open, low-growing vegetation for nesting and prefers sandy areas with

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		occasional vegetation.
yellow-breasted chat <i>Icteria virens</i>	CDFW: Species of Special Concern (nesting)	Riparian woodland, with dense undergrowth.
grasshopper sparrow <i>Ammodramus savannarum perpallidus</i>	CDFW: Species of Special Concern (nesting)	Breeds and winters in open grasslands and prairies with patches of bare ground. This species tends to nest in open native grassland.
Bell's sparrow <i>Amphispiza belli</i>	CDFW: Watch List	Occurs mainly in coastal sage scrub and semi-open chaparral habitats several years after fire events have opened up the vegetation.
western bluebird <i>Sialia mexicana</i>	MSCP: Covered	Frequents open woodlands for foraging, but requires suitable roosting and nesting cavities usually in snags. Availability of snags may limit

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		population density.
Mammals		
big free-tailed bat <i>Nyctinomops macrotis</i>	CDFW: Species of Special Concern	Rocky and rugged terrain including desert shrub, woodlands, and evergreen forests
Dulzura pocket mouse <i>Chaetodipus californicus femoralis</i>	CDFW: Species of Special Concern	Slopes covered with chaparral and live oaks.
pallid bat <i>Antrozous pallidus</i>	CDFW: Species of Special Concern	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect them from high temperatures.
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	CDFW: Species of Special Concern	In San Diego County, occurs primarily in urban areas. In Arizona and

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		Mexico, found in deep canyons and in the mountains, foraging in riparian, desert scrub, and pinyon-juniper habitats, in particular on <i>Yucca</i> sp.
pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	CDFW: Species of Special Concern	Rugged cliffs, rocky outcrops, and slopes in desert shrub and pine oak forests.
western red bat <i>Lasiurus blossevillii</i>	CDFW: Species of Special Concern	Obligate foliage-roosting species that roosts in trees and forages along wooded edges and riparian areas. Feeds over grasslands, shrublands, open woodlands, forests, and croplands.
western mastiff bat <i>Eumops perotis californicus</i>	CDFW: Species of Special Concern	Colonial roosting species that prefers steep rocky

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		cliffs, but occasionally may use buildings. Chaparral, live oaks, and arid, rocky regions. Requires downward-opening crevices.
western yellow bat <i>Lasiurus xanthinus</i>	CDFW: Species of Special Concern	Below 600 meters in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.
northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	CDFW: Species of Special Concern	Inhabits coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities.
pacific pocket mouse <i>Perognathus longimembris pacificus</i>	ESA: Endangered CDFW: Species of Special	Plant communities suitable for the Pacific pocket mouse consist of shrublands with firm, fine-grain, sandy substrates in the immediate vicinity of the

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		ocean. These communities include coastal strand, coastal dunes, river alluvium, and coastal sage scrub growing on marine terraces.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	CDFW: Species of Special Concern	Typical habitats include early stages of chaparral, open coastal sage scrub, and grasslands near the edges of brush.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	CDFW: Species of Special Concern	Common to abundant in Joshua tree, piñon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats.
Mule deer <i>Odocoileus hemionus</i>	MSCP: Covered	This species requires large areas of chaparral or coastal sage

Special-Status Wildlife Species Potentially Occurring¹ in the LCP		
Common Name Scientific Name	Sensitivity Status²	Habitat Requirements
		scrub and riparian vegetation for cover and foraging.
mountain lion <i>Felis concolor</i>	MSCP: Covered	This species requires vast areas of rugged mountains, forests, riparian vegetation, deserts, and other areas with plenty of cover and a mammalian prey base.
American badger <i>Taxidea taxus</i>	CDFW: Species of Special Concern MSCP: Covered	Coastal sage scrub, mixed chaparral, grassland, oak woodland, chamise chaparral, mixed conifer, pinyon-juniper, desert scrub, desert wash, montane meadow, open areas, and sandy soils.

¹ Species listed in this table were found to have been historically recorded within the vicinity of the LCP area (San Diego County Bird Atlas [Unitt 2004], U.S. Fish and Wildlife Service [USFWS 2016], California Natural Diversity Database [CNDDDB 2016], and San Diego County [County 2016]) during a desktop analysis

of the USGS 7.5-minute Topographic Quadrangles that include and surround the LCP area (Del Mar, Encinitas, Rancho Santa Fe). The traditional nine-quadrangle search could not be implemented because the LCP area is directly adjacent to the Pacific Ocean, for which there are no designated quadrangles. Focused surveys and detailed vegetation mapping are required on a project-by-project basis to determine the presence, absence or potential for a species to occur within the LCP area.

²Sensitivity status taken from CDFW Special Animals List July 2016 and the MSCP list of covered species.

Sensitivity Status Key

ESA: Federal Endangered Species Act (ESA)

CESA: California Endangered Species Act (CESA)

CDFW: California Department of Fish and Wildlife

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Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Red-sand verbena <i>Abronia maritima</i>	CNPS: List 4.2	Perennial herb. Found in coastal dunes. Elevation 0- 100 meters.	February - November
San Diego thorn-mint <i>Acanthomintha ilicifolia</i>	CNPS: List 1B.1 ESA: Threatened CESA: Endangered MSCP: Covered	Annual herb. Found in clay (openings), chaparral, coastal scrub, valley and foothill grassland, vernal pools. Elevation 10 – 960 meters.	April – June
Nuttal’s acmispon <i>Acmispon prostratus</i>	CNPS: List 1B.1	Annual herb. Found in coastal dunes, coastal scrub. Elevation 0-10 meters.	March – July
California adolphia <i>Adolphia californica</i>	CNPS: List 2B.1	Deciduous shrub. Found in chaparral, coastal scrub, and valley and foothill grassland/clay soils. Elevation 45 – 740 meters.	December– May
Shaw’s agave <i>Agave shawii var. shawii</i>	CNPS: List 2B.1	Perennial leaf succulent. Found in maritime succulent scrub, coastal bluff scrub, and coastal scrub. Elevation 10 – 120 meters.	September – May

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
singlewhorl burrobrush <i>Ambrosia monogyra</i>	CNPS: List 2B.2	Perennial shrub. Found in chaparral and Sonoran desert scrub. Elevation 10 – 50 meters.	August – November
San Diego ambrosia <i>Ambrosia pumila</i>	CNPS: List 1B.1 ESA: Endangered MSCP: Covered	Perennial rhizomatous herb. Found in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Elevation 20 – 450 meters.	April – October
aphanisma <i>Aphanisma blitoides</i>	CNPS: List 1B.2 MSCP: Covered	Annual herb. Found in coastal bluff scrub, coastal dunes, and coastal scrub in sandy soils. Elevation 3–920 meters.	March –June
Del Mar manzanita <i>Arctostaphylos glandulosa ssp. Crassifolia</i>	ESA: Endangered CNPS: List 1B.1 MSCP: Covered	Evergreen shrub. Found in chaparral maritime scrub in sandy soils. Elevation 0–350 meters.	December– June
Rainbow manzanita <i>Arctostaphylos rainbowensis</i>	CNPS: List 1B.1	Perennial evergreen shrub Found in chaparral. Elevation 205-670 meters.	December – March

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
San Diego sagewort <i>Artemisia palmeri</i>	CNPS: List 4.2	Deciduous shrub. Found in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland. Elevation 15 – 915 meters.	May– September
Western spleenwort <i>Asplenium vespertinum</i>	ESA: Endangered CESA: Endangered CNPS: List 4.2	Perennial rhizomatous herb. Found in chaparral, cismontane woodland, coastal scrub. Elevation 180 – 1000 meters.	February – June
coastal dunes milkvetch <i>Astragalus tener var. titi</i>	ESA: Endangered CESA: Endangered CNPS: List 1B.1	Annual herb. Found in coastal bluff scrub, coastal dunes, and coastal prairie. Elevation 0–50 meters.	March–May
Coulter’s saltbush <i>Atriplex coulteri</i>	CNPS: List 1B.2	Perennial herb. Found in coastal bluff scrub, coastal dunes, and coastal scrub, valley and foothill grassland. Elevation 3 – 460 meters.	March– October

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
south coast saltscale <i>Atriplex pacifica</i>	CNPS: List 1B.2	Annual herb. Found in coastal bluff scrub, coastal dunes, coastal scrub, and playas. Elevation 0 – 140 meters.	March– October
Parish's brittlescale <i>Atriplex parishii</i>	CNPS: List 1B.1	Annual herb. Found in chenopod scrub, playas, and vernal pools Elevation 25 - 1900 meters.	June – October
Encinitas baccharis <i>Baccharis vanessae</i>	ESA: Threatened CESA: Endangered CNPS: List 1B.1 MSCP: Covered	Perennial deciduous shrub. Found in chaparral (maritime) and Cismontane woodland. Elevation 60 - 720 meters.	August – November
golden-spined cereus <i>Bergerocactus emoryi</i>	CNPS: List 2 B.2	Perennial stem succulent. Found in closed-cone coniferous forest, chaparral, and coastal scrub. Elevation 3 – 395 meters.	May – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
San Diego goldenstar <i>Bloomeria clevelandii</i>	CNPS: List 1B.1 MSCP: Covered	Perennial bulbiferous herb. Found in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Elevation 50 – 465 meters.	April – May
thread-leaved brodiaea <i>Brodiaea filifolia</i>	ESA: Threatened CESA: Endangered CNPS: List 1B.1 MSCP: Covered	Perennial bulbiferous herb. Found in chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. Elevation 25 – 1120 meters.	March – June
Orcutt's brodiaea <i>Brodiaea orcuttii</i>	CNPS: List 1B.1 MSCP: Covered	Perennial bulbiferous herb. Found in closed- cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. Elevation 30 – 1692 meters.	May – July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Brewer's calandrinia <i>Calandrinia breweri</i>	CNPS: List 4.2	Annual herb. Found in chaparral and coastal scrub. Elevation 10 – 1220 meters.	January – June
Dunn's mariposa lily <i>Calochortus dunnii</i>	CESA: Rare CNPS: List 1B.2 MSCP: Covered	Perennial bulbiferous herb. Found in closed- cone coniferous forest, chaparral, and valley and foothill grassland. Elevation 185 – 1830 meters.	February – June
Lewis's evening- primrose <i>Camissonia lewisii</i>	CNPS: List 3	Annual herb. Found in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland. Elevation 0 – 300 meters.	March–May
Lakeside ceanothus <i>Ceanothus cyaneus</i>	CNPS: List 1B.2	Perennial evergreen shrub. Found in closed- cone coniferous forest and chaparral. Elevation 235 - 455 meters.	April – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Otay Mountain ceanothus <i>Ceanothus otayensis</i>	CNPS: List 1B.2	Perennial evergreen shrub. Found in chaparral in metavolcanic or gabbroic soils. Elevation 600 - 1000 meters.	January – April
wart-stemmed ceanothus <i>Ceanothus verrucosus</i>	CNPS: List 2.2 MSCP: Covered	Evergreen shrub. Found in chaparral. Elevation 1 – 380 meters.	December– May
southern tarplant <i>Centromadia parryi ssp. australis</i>	CNPS: List 1B.1	Annual herb. Found in marshes and swamps, valley and foothill grassland, and vernal pools. Elevation 0 – 480 meters.	May– November
smooth tarplant <i>Centromadia pungens ssp. laevis</i>	CNPS: List 1B.1	Annual herb. Found in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. Elevation 0 – 640 meters.	April– September
Orcutt’s pincushion <i>Chaenactis glabriuscula var. orcuttiana</i>	CNPS: List 1B.1	Annual herb. Found in coastal bluff scrub and coastal dunes. Elevation 0 – 100 meters.	January– August

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
southern mountain misery <i>Chamaebatia australis</i>	CNPS: List 4.2	Perennial evergreen. Found in chaparral. Elevation 300 – 1020 meters.	November – May
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	ESA: Endangered CESA: Endangered CNPS: List 1B.2 MSCP: Covered	Annual herb (hemiparasitic). Found in coastal dunes, marshes and swamps (coastal salt). Elevation 0 – 30 meters.	May – October
Orcutt's spineflower <i>Chorizanthe orcuttiana</i>	ESA: Endangered CESA: Endangered CNPS: List 1B.1	Annual herb. Found in closed-cone coniferous forest, chaparral (maritime), coastal scrub. Elevation 3 - 125 meters.	March – May
long-spined spineflower <i>Chorizanthe polygonoides</i> var. <i>longispina</i>	CNPS: List 1B.2	Annual herb. Found in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Elevation 30 – 1530 meters.	April – July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
seaside cistanthe <i>Cistanthe maritima</i>	CNPS: List 4.2	Annual herb. Found in coastal bluff scrub, coastal scrub, and valley and foothill grassland. Elevation 5 - 300 meters.	February – August
delicate clarkia <i>Clarkia delicata</i>	CNPS: List 1B.2	Annual herb. Found in chaparral and cismontane woodland. Elevation 235 - 1000 meters.	April–June
summer holly <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	CNPS: List 1B.2	Evergreen shrub. Found in chaparral and cismontane woodland. Elevation 30 – 790 meters.	April–June
small-flowered morning-glory <i>Convolvulus simulans</i>	CNPS: List 4.2	Annual herb. Found in chaparral, coastal scrub, and valley and foothill grassland. Elevation 30 – 740 meters.	March – July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
San Diego sand aster <i>Corethrogyne filaginifolia</i> var. <i>incana</i>	CNPS: List 1B.1	Perennial herb. Found in coastal bluff scrub, chaparral, and coastal scrub. Elevation 3 – 115 meters.	June – September
Del Mar Mesa sand aster <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	CNPS: List 1B.1	Perennial herb. Found in coastal bluff scrub, chaparral, and coastal scrub. Elevation 15 – 150 meters.	May – September
Wiggins' cryptantha <i>Cryptantha wigginsii</i>	CNPS: List 1B.2	Annual herb. Found in coastal scrub. Elevation 20 – 275 meters.	February – June
snake cholla <i>Cylindropuntia californica</i> var. <i>californica</i>	CNPS: List 1B.1 MSCP: Covered	Perennial stem succulent. Found in chaparral and coastal scrub. Elevation 30 – 150 meters.	April – May

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
paniculate tarplant <i>Deinandra paniculata</i>	CNPS: List 4.2	Annual herb. Found in coastal scrub, valley and foothill grassland, and vernal pools. Elevation 25-940 meters.	March – November
western dichondra <i>Dichondra occidentalis</i>	CNPS: List 4.2	Rhizomatous herb. Found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation 50 - 500 meters.	March–July
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	CNPS: List 1B.1	Perennial herb. Found in chaparral, coastal scrub, and valley and foothill grassland. Elevation 5 - 450 meters.	April – June
short-leaved dudleya <i>Dudleya brevifolia</i>	CESA: Endangered CNPS: List 1B.1 MSCP: Covered	Perennial herb. Found in chaparral and coastal scrub. Elevation 30 - 250 meters.	April – May

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
variegated dudleya <i>Dudleya variegata</i>	CNPS: List 1B.2 MSCP: Covered	Perennial herb. Found in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools. Elevation 3 – 580 meters.	April – June
sticky dudleya <i>Dudleya viscida</i>	CNPS: List 1B.2	Perennial herb. Found in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub. Elevation 10 – 550 meters.	May – June
Palmer's goldenbush <i>Ericameria palmeri</i> var. <i>palmeri</i>	CNPS: List 1B.1 MSCP: Covered	Perennial evergreen shrub. Found in chaparral and coastal scrub. Elevation 30 – 600 meters.	July – November
San Diego button-celery <i>Eryngium aristulatum</i> var. <i>parishii</i>	ESA: Endangered CESA: Endangered CNPS: List 1B.1 MSCP: Covered	Annual / perennial herb. Found in coastal scrub, valley and foothill grassland, and vernal pools. Elevation 20 – 620 meters.	April – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Pendleton button-celery <i>Eryngium pendletonense</i>	CNPS: List 1B.1	Perennial herb. Found in coastal bluff scrub, valley and foothill grassland, and vernal pools. Elevation 15-110 meters.	April – July
cliff spurge <i>Euphorbia misera</i>	CNPS: List 2B.2	Perennial shrub. Found in coastal bluff scrub, coastal scrub, and Mojave and desert scrub. Elevation 10 – 500 meters.	December – October
San Diego barrel cactus <i>Ferocactus viridescens</i>	CNPS: List 2B.1 MSCP: Covered	Perennial stem succulent. Found in chaparral, coastal scrub, valley and foothill grassland, vernal pools. Elevation 3 – 450 meters.	May – June
Palmer's frankenian <i>Frankenia palmeri</i>	CNPS: List 2B.1	Perennial herb. Found in coastal dunes, marshes and swamps (coastal salt), and playas. Elevation 0 – 10 meters.	May - July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Campbell's liverwort <i>Geothallus tuberosus</i>	CNPS: List 1B.1	Ephemeral liverwort. Found in coastal scrub (mesic), and vernal pools. Elevation 10 – 600 meters.	N/A
Mission Canyon bluecup <i>Githopsis diffusa ssp. filicaulis</i>	CNPS: List 3.1	Annual herb. Found in chaparral. Elevation 450 - 700 meters.	April – June
San Diego gumplant <i>Grindelia hallii</i>	CNPS: List 1B.2	Perennial herb. Found in chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland. Elevation 185 – 1745 meters.	May – October
Palmer's grapplinghook <i>Harpagonella palmeri</i>	CNPS: List 4.2	Annual herb. Found in chaparral, coastal scrub, and valley and foothill grassland. Elevation 20 – 955 meters.	March–May
Orcutt's goldenbush <i>Hazardia orcuttii</i>	CESA: Threatened CNPS: List 1B.1	Evergreen shrub. Found in chaparral and coastal scrub. Elevation 80 – 85 meters.	August– October

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
beach goldenaster <i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	CNPS: List 1B.1	Perennial herb. Found in chaparral (coastal), coastal dunes, and coastal scrub. Elevation 0 – 1225 meters.	March – December
graceful tarplant <i>Holocarpha virgata</i> ssp. <i>elongata</i>	CNPS: List 4.2	Annual herb. Found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation 60 – 1100 meters	May – November
vernal barley <i>Hordeum intercedens</i>	CNPS: List 3.2	Annual herb. Found in coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), and vernal pools. Elevation 5 - 1000 meters.	March – June
Ramona horkelia <i>Horkelia truncata</i>	CNPS: List 1B.3	Perennial herb. Found in chaparral, cismontane woodland. Elevation 400 - 1300 meters.	May – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
decumbent goldenbush <i>Isocoma menziesii</i> var. <i>decumbens</i>	CNPS: List 1B.2	Perennial shrub. Found in chaparral and coastal scrub. Elevation 10 – 135 meters.	April – November
San Diego marsh-elder <i>Iva hayesiana</i>	CNPS: List 2.2 MHCP	Perennial herb. Found in marshes, swamps, and playas. Elevation 10 – 500 meters.	April–October
southwestern spiny rush <i>Juncus acutus</i> ssp. <i>leopoldii</i>	CNPS: List 4.2	Perennial herb. Found in coastal dunes, meadows and seeps, and marshes and swamps. Elevation 3 – 900 meters.	May–June
Coulter’s goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	CNPS List 1B.1	Annual herb. Found in marshes and swamps, playas, and vernal pools Elevation 1 – 1220 meters.	February– June
Robinson's pepper-grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	CNPS List 4.3	Annual herb. Found in chaparral and coastal scrub. Elevation 1 – 885 meters.	January – July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
sea dahlia <i>Leptosyne maritima</i>	CNPS List 2B.2	Perennial herb. Found in coastal bluff scrub and coastal scrub. Elevation 5 – 150 meters.	March – May
California desert thorn <i>Lycium californicum</i>	CNPS: List 4.2	Perennial shrub. Found in coastal bluff scrub and coastal scrub. Elevation 5 – 150 meters.	March– August
small-flowered microseris <i>Microseris douglasii</i> ssp. <i>platycarpha</i>	CNPS: List 4.2	Annual herb. Found in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools. Elevation 15 – 1070 meters.	March – May
low bush monkeyflower <i>Mimulus aurantiacus</i> var. <i>aridus</i>	CNPS: List 4.3	Perennial evergreen shrub. Found in chaparral (rocky), Sonoran desert scrub. Elevation 750 – 1200 meters.	April – July
Palomar monkeyflower <i>Mimulus diffusus</i>	CNPS: List 4.3	Annual herb. Found in chaparral and lower montane coniferous forest. Elevation 1220 – 1830 meters.	April – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
light gray lichen <i>Mobergia calculiformis</i>	CNPS: List 3	Crustose lichen (saxicolous). Found in coastal Scrub. Elevation 10 meters.	N/A
felt-leaved monardella <i>Monardella hypoleuca ssp. lanata</i>	CNPS List 1B.2 MSCP: Covered	Perennial rhizomatous herb. Found in chaparral and cismontane woodland. Elevation 300 - 1575 meters.	June – August
willow monardella <i>Monardella viminea</i>	ESA: Endangered CESA: Endangered CNPS List: 1B.1	Perennial herb. Found in coastal scrub/alluvial ephemeral washes with adjacent coastal scrub, chaparral, riparian forest, and/or riparian scrub. Elevation 50-225 meters	June-August
little mousetail <i>Myosurus minimus ssp. apus</i>	CNPS List 3.1	Annual herb. Found in valley and foothill grassland and vernal pools. Elevation 20 - 640 meters.	March – June
mud nama <i>Nama stenocarpa</i>	CNPS List: 2B.2	Annual herb. Found in marshes and swamps. Elevation 5-500 meters.	January- July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
spreading navarretia <i>Navarretia fossalis</i>	ESA: Threatened CNPS List: 1B.1	Annual herb. Found in vernal pools, chenopod scrub, marshes and swamps, and playas. Elevation 30-655 meters.	April-June
prostrate vernal pool navarretia <i>Navarretia prostrata</i>	CNPS List: 1B.1	Annual herb. Found in coastal scrub, valley and foothill grassland, and vernal pools. Elevation 3 - 1210 meters.	April-July
Coast woolly- heads <i>Nemacaulis denudata</i> var. <i>denudata</i>	CNPS: List 1B.1	Annual herb. Found in coastal Dunes. Elevation 0-100 meters.	April- September
slender cottonheads <i>Nemacaulis denudata</i> var. <i>gracilis</i>	CNPS: List 2B.2	Annual herb. Found in coastal dunes, desert dunes, and Sonoran desert scrub. Elevation -50 - 400 meters.	March – May
California adder's-tongue <i>Ophioglossum californicum</i>	CNPS: List 4.2	Perennial rhizomatous herb. Found in chaparral, valley and foothill grassland, and vernal pools. Elevation 60-525 meters.	December – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
California Orcutt grass <i>Orcuttia californica</i>	ESA: Endangered CESA: Endangered CNPS List: 1B.1	Annual herb. Found in vernal pools. Elevation 15-660 meters	April-August
short-lobed broomrape <i>Orobanche parishii</i> ssp. <i>brachyloba</i>	CNPS List: 4.2	Perennial herb. Found in coastal bluff scrub, coastal dunes, and coastal scrub. Elevation 3- 305 meters	April-October
golden-rayed pentachaeta <i>Pentachaeta aurea</i> ssp. <i>aurea</i>	CNPS List: 4.2	Annual herb. Found in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland. Elevation 80-1850 meters.	March – July
south coast branching phacelia <i>Phacelia ramosissima</i> var. <i>australitoralis</i>	CNPS List: 3.2	Perennial herb. Found in chaparral, coastal dunes, coastal scrub, and marshes and swamps. Elevation 5-300 meters.	March – August

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Brand's star phacelia <i>Phacelia stellaris</i>	CNPS List: 1B.1	Annual herb. Found in coastal scrub and coastal dunes Elevation 1-400 meters	March-June
Torrey pine <i>Pinus torreyana</i> var. <i>torreyana</i>	CNPS: List 1B.2 MSCP: Covered	Evergreen coniferous tree. Found in closed- cone coniferous forest and chaparral in sandstone soils. Elevation 75-160 meters	N/A
chaparral rein orchid <i>Piperia cooperi</i>	CNPS List: 4.2	Perennial herb. Found in chaparral, cismontane woodland, and valley and foothill grassland. Elevation 15-1585 meters.	March – June
San Diego mesa mint <i>Pogogyne abramsii</i>	ESA: Endangered CESA: Endangered CNPS List: 1B.1	Annual herb. Found in vernal pools. Elevation 90-200 meters.	March-July

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Otay Mesa mint <i>Pogogyne nadiuscula</i>	ESA: Endangered CESA: Endangered CNPS List: 1B.1	Annual herb. Found in vernal pools. Elevation 90-250 meters.	May-July
Delta woolly- marbles <i>Psilocarphus brevisimus</i> var. <i>multiflorus</i>	CNPS List: 4.2	Annual herb. Found in vernal pools. Elevation 10-500 meters.	May – June
Nuttall’s scrub oak <i>Quercus dumosa</i>	CNPS: List 1B.1	Evergreen shrub. Found in closed- cone coniferous forest, chaparral, and coastal scrub. Elevation 15-400 meters.	February-April
Engelmann oak <i>Quercus engelmannii</i>	CNPS List: 4.2	Perennial deciduous tree. Found in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elevation 50-1300 meters.	March – June

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
Munz's sage <i>Salvia munzii</i>	CNPS: List 2B.2	Perennial evergreen shrub. Found in chaparral and coastal scrub. Elevation 115-1065 meters.	February – April
ashy spike-moss <i>Selaginella cinerascens</i>	CNPS: List 4.1	Perennial rhizomatous herb. Found in chaparral and coastal scrub. Elevation 20-640 meters.	N/A
chaparral ragwort <i>Senecio aphanactis</i>	CNPS List: 2B.2	Annual herb. Found in chaparral, cismontane woodland, and coastal scrub. Elevation 15-800 meters	January-April
bottle liverwort <i>Sphaerocarpos drewei</i>	CNPS List: 1B.1	Ephemeral liverwort. Found in chaparral and coastal scrub. Elevation 90-600 meters.	N/A
purple stemodia <i>Stemodia durantifolia</i>	CNPS List: 2B.1	Perennial herb. Found in Sonoran desert scrub. Elevation 180-300 meters	January – December

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
San Diego County needle grass <i>Stipa diegoensis</i>	CNPS List: 4.2	Perennial herb. Found in chaparral and coastal scrub. Elevation 10-800 meters.	February – June
estuary seablite <i>Suaeda esteroa</i>	CNPS List: 1B.2	Perennial herb. Found in marshes and swamps. Elevation 0-5 meters.	May - January
woolly seablite <i>Suaeda taxifolia</i>	CNPS List: 4.2	Perennial evergreen shrub. Found in coastal bluff scrub, coastal dunes, and marshes and swamps. Elevation 0-50 meters.	January – December
Parry's tetracoccus <i>Tetracoccus dioicus</i>	CNPS List: 1B.2	Perennial deciduous shrub. Found in chaparral and coastal scrub. Elevation 165-1000 meters.	April – May
woven-spored lichen <i>Texosporium sancti-jacobi</i>	CNPS List: 3	Crustose lichen (terricolous). Found in chaparral. Elevation 290-660 meters.	N/A

Special-Status Plant Species Potentially Occurring within the LCP¹			
Common Name Scientific Name	Sensitivity Status²	General Habitat Description (CNPS 2016)	Blooming Period
San Diego County viguiera <i>Viguiera laciniata</i>	CNPS List: 4.2	Perennial shrub. Found in chaparral and coastal scrub. Elevation 60-750 meters.	February – August
rush-like bristleweed <i>Xanthisma junceum</i>	CNPS List: 4.3	Perennial herb. Found in chaparral and coastal scrub. Elevation 240 – 1000 meters.	May – January

¹**Historical Occurrence:** Species listed in this table were found to have been historically recorded within the vicinity of the LCP area (CNPS 2016;CNDDDB 2016) during a desktop analysis of the USGS 7.5-minute Topographic Quadrangles that include and surround the LCP area (Del Mar, Encinitas, Rancho Santa Fe). The traditional nine-quadrangle search could not be implemented because the LCP area is directly adjacent to the Pacific Ocean, for which there are no designated quadrangles. Focused surveys and detailed vegetation mapping are required on a project-by-project basis to determine the presence, absence or potential for a species to occur within the LCP area.

²**Sensitivity Status Key**

ESA: Federal Endangered Species Act (ESA)

CESA: California Endangered Species Act (CESA)

CNPS: California Native Plant Society California Rare Plant Rank Lists:

1B: Considered rare, threatened, or endangered in California and elsewhere

2: Plants rare, threatened, or endangered in California, but more common elsewhere

3: Plants for which we need more information – review list

4: Plants of limited distribution a watch list

Decimal notations: .1 – Seriously endangered in California, .2 – Fairly endangered in California,

.3 – Not very endangered in California

Multiple Species Conservation Program (MSCP)

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