



Biological Resources  
Report for the  
Southeastern San Diego  
and Encanto  
Neighborhoods Community  
Plan Updates,  
City of San Diego  
Project No. 386029  
SCH No. 2014051075

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A handwritten signature in black ink, appearing to read "Brenna Ogg", followed by a stylized flourish.

Brenna Ogg, Senior Biologist

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## TABLE OF CONTENTS

<b>Abbreviations and Acronyms</b>	<b>iv</b>
<b>1.0 Introduction</b>	<b>1</b>
<b>2.0 Project Description</b>	<b>1</b>
2.1 Project Background, Objectives, and Overview	1
2.2 Project Location	2
<b>3.0 Regulatory Framework</b>	<b>2</b>
3.1 Federal Regulations	2
3.2 State Regulations	19
3.3 Local Regulations	21
<b>4.0 Methods</b>	<b>26</b>
4.1 Literature Review	26
4.2 Vegetation Communities	27
4.3 Sensitive Plant Species	27
4.4 Sensitive Wildlife Species	28
4.5 Jurisdictional Wetlands and Waters	29
<b>5.0 Existing Conditions</b>	<b>29</b>
5.1 Environmental Setting	29
5.2 Vegetation Communities	32
5.3 Sensitive Biological Resources	41
5.4 Jurisdictional Waters/Wetlands	79
5.5 Wildlife Movement Corridors	86
5.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area	88
<b>6.0 Project Impacts and Significance</b>	<b>88</b>
6.1 Sensitive Vegetation Community Impacts	93
6.2 Sensitive Plant Species Impacts	95
6.3 Sensitive Wildlife Species Impacts	105
6.4 Jurisdictional Waters/Wetlands Impacts	107
6.5 Wildlife Movement Corridor Impacts	114
6.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area Impacts	114
6.7 Consistency with Local Policies, Ordinances, and Adopted Plans	116
6.8 Cumulative Impacts	116
<b>7.0 Mitigation Framework</b>	<b>119</b>
7.1 Sensitive Vegetation Communities Mitigation	120
7.2 Sensitive Plant Species Mitigation	122
7.3 Sensitive Wildlife Species Mitigation	122
7.4 Jurisdictional Waters/Wetlands Mitigation	123
7.5 Wildlife Movement Corridors Mitigation	127
7.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area Mitigation	127
7.7 Local Policies, Ordinances, and Adopted Plans Compliance	129
7.8 Cumulative Impacts Mitigation	131

## TABLE OF CONTENTS (CONT.)

### 8.0 References Cited 131

#### FIGURES

1:	Regional Location of the Southeastern San Diego and Encanto Neighborhoods CPU Areas	6
2a:	Southeastern San Diego CPU Area Location on USGS Map	7
2b:	Encanto Neighborhoods CPU Area Location on USGS Map	9
3a:	Southeastern San Diego CPU Area Location on City 800' Map	11
3b:	Encanto Neighborhoods CPU Area Location   on City 800' Map	13
4a:	Southeastern San Diego CPU Area Location on Aerial Photograph	15
4b:	Encanto Neighborhoods CPU Area Location on Aerial Photograph	17
5a:	Existing Biological Resources within the Southeastern San Diego CPU Area	33
5b:	Existing Biological Resources within the Encanto Neighborhoods CPU Area	35
6a:	Sensitive Vegetation Communities within the Southeastern San Diego CPU Area	43
6b:	Sensitive Vegetation Communities within the Encanto Neighborhoods CPU Area	45
7a:	Potentially Jurisdictional Wetlands and Waters within the Southeastern San Diego CPU Area	81
7b:	Potentially Jurisdictional Wetlands and Waters within the Encanto Neighborhoods CPU Area	83
8a:	Location of MHPA In Relation to Conserved Lands and Proposed Open Space under the Southeastern San Diego CPU	89
8b:	Location of MHPA In Relation to Conserved Lands and Proposed Open Space under the Encanto Neighborhoods CPU	91
9a:	Proposed Impacts to Vegetation Communities within the Southeastern San Diego CPU Area	97
9b:	Proposed Impacts to Vegetation Communities within the Encanto Neighborhoods CPU Area	99
10a:	Proposed Impacts to Sensitive Vegetation Communities within the Southeastern San Diego CPU Area	101
10b:	Proposed Impacts to Sensitive Vegetation Communities within the Encanto Neighborhoods CPU Area	103
11a:	Proposed Impacts to Potentially Jurisdictional Wetlands and Waters within the Southeastern San Diego CPU Area	109
11b:	Proposed Impacts to Potentially Jurisdictional Wetlands and Waters within the Encanto Neighborhoods CPU Area	111



## TABLE OF CONTENTS (CONT.)

### TABLES

1:	Southeastern San Diego CPU Policies Pertaining to Biological Resources	3
2:	Encanto Neighborhoods CPU Policies Pertaining to Biological Resources	4
3:	General Plan Policies Relating to Biological Resources	24
4:	Vegetation Communities and Land Cover Types within the Southeastern San Diego and Encanto Neighborhoods CPU Areas	32
5:	Sensitive Plant Species Known or with the Potential to Occur in the Southeastern San Diego and Encanto Neighborhoods CPU Areas	49
6:	Sensitive Wildlife Species Known or with Potential to Occur in the Southeastern San Diego and Encanto Neighborhoods CPU Areas	66
7:	Anticipated Impacts to Vegetation Communities within the Southeastern and Encanto Neighborhoods CPU Areas	94
8:	Mitigation Ratios for Impacts to Upland Vegetation Communities and Land Cover Types	121
9a:	City of San Diego Wetland Mitigation Ratios (with Biologically Superior Design)	125
9b:	City of San Diego Wetland Mitigation Ratios (without Biologically Superior Design Outside the Coastal Zone)	125

## Abbreviations and Acronyms

ACOE	United States Army Corps of Engineers
AMSL	above mean sea level
BLC	boundary line correction
CDFW	California Department of Fish and Wildlife (formerly California Department of Fish and Game)
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CPUs	Southeastern San Diego and Encanto Neighborhoods Community Plan Updates
CWA	Clean Water Act
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
GIS	Geographic Information System
HCP	Habitat Conservation Plan
I-15	Interstate 15
I-805	Interstate 805
IA	Implementing Agreement
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MMRP	Mitigation Monitoring and Reporting Program
MSCP	Multiple Species Conservation Program
RECON	RECON Environmental, Inc.
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SanGIS	San Diego Geographic Information Source
SDNHM	San Diego Natural History Museum
SR-94	State Route 94
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WBWG	Western Bat Working Group

# **1.0 Introduction**

This document provides information pertaining to the existing biological resources in the Southeastern San Diego (SESD) and Encanto Neighborhoods Community Plan Update (CPU) Areas and anticipated impacts to sensitive biological resources associated with buildout of the SESD CPU and the Encanto Neighborhoods CPU (collectively referred to as the CPUs), which are currently being prepared by Dyett & Bhatia Urban and Regional Planners. This report is being prepared to support the Program Environmental Impact Report for the CPUs. Mitigation measures are proposed for significantly adverse impacts that are anticipated to occur as a result of CPU implementation. This report is based on a review of existing literature and recent aerial imagery. However, future projects implemented as part of the CPU land use plans would require subsequent environmental review, including the requirement for project-specific biological surveys and technical reports.

## **2.0 Project Description**

### **2.1 Project Background, Objectives, and Overview**

The proposed project includes the SESD and Encanto Neighborhoods CPU. The existing SESD Community Plan, which includes both the SESD and Encanto Neighborhoods planning areas, was originally adopted in 1969 and comprehensively updated in 1987. In order to facilitate greater focus on each community, separate community plans are being prepared through this update process for each community: the SESD CPU and the Encanto Neighborhoods CPU. The update will ensure consistency of the CPUs with, and incorporate relevant policies from, the 2008 City of San Diego General Plan (General Plan), as well as provide a long-range, comprehensive policy framework for growth and development in the two communities through 2035.

The City has undertaken the CPUs to address changes in conditions since 1987, when the SESD Community Plan was adopted. As such, it is intended to define new strategies for how SESD and the Encanto Neighborhoods could develop and function over the next 20 years. With adoption of the General Plan in 2008, the CPUs would also serve as a means of carrying out the Guiding Principles of the General Plan as they pertain to the SESD and the Encanto Neighborhoods communities. Thus, the CPUs would provide detailed policy direction needed to implement the General Plan with respect to the distribution and arrangement of land uses (public and private), local street and transit network, prioritization and provision of public facilities, community and site specific urban design guidelines, and recommendations to preserve and enhance natural open space

and cultural resources within the SESD and the Encanto Neighborhoods communities. The CPUs' process includes adoption of a rezone ordinance and create a new Community Plan Implementation Overlay Zone (CPIOZ) to implement design standards. For purposes of this report, proposed policies from each CPU that are relevant to biological resources have been included in Tables 1 and 2.

## 2.2 Project Location

The SESD CPU Area encompasses approximately 2,950 acres in the city of San Diego, immediately east of downtown San Diego, west of the Encanto Neighborhoods CPU Area, and north of National City (Figure 1). The SESD CPU Area is bounded by State Route 94 (SR-94) to the north, Interstate 805 (I-805) to the east, and Interstate 5 to the west, with Division Street delineating most of the southern extent (Figures 2a, 3a, and 4a).

The Encanto Neighborhoods CPU Area encompasses approximately 3,821 acres in the city of San Diego, immediately east of the SESD CPU Area, west of the city of Lemon Grove, and north of National City (see Figure 1). The Encanto Neighborhoods CPU Area is largely bounded by SR-94 to the north, I-805 to the west, 69<sup>th</sup> Street and Woodman Street to the east, and Plaza Boulevard to the south (Figures 2b, 3b, and 4b).

## 3.0 Regulatory Framework

Several existing federal, state, and local regulations protect ecosystems, special status species and habitat, and wetlands in the city of San Diego, and are discussed below. The California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) have direct regulatory authority over species formally listed as threatened, endangered, or candidates for listing. The CDFW issues permits under the Lake and Streambed Alteration Program and maintains lists of special status plant communities and habitats with the California Natural Diversity Database (CNDDB).

### 3.1 Federal Regulations

**Federal Endangered Species Act (FESA).** This act provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the FESA. Take of a federally listed threatened or endangered species is prohibited unless a take permit is issued. The FESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and an incidental take permit (ITP) has been issued.

**TABLE 1**  
**SOUTHEASTERN SAN DIEGO COMMUNITY PLAN UPDATE POLICIES RELATING TO**  
**BIOLOGICAL RESOURCES**

Policy	Description
LU-33	Evaluate remnant cemetery properties for opportunities for additional open space and parks.
PF-20	Use natural and/or landscaped facilities for flood control in the Chollas Creek system. Prohibit the use of concrete channels.
RE-10	Preserve, protect, and restore canyons and hillsides as important visual amenities and limit public use to designated trails.
RE-11	Provide signs at strategic open space overlooks and trail entryway locations that interpret the biological and scenic value of the open space systems.
RE-12	Provide sufficient human and economic resources to preserve and enhance the existing parks and open space areas serving Southeastern San Diego.
RE-18	Pursue the attainment of public use easements for trails on private properties within the Chollas Creek Open Space system.
RE-19	Protect and enhance the natural resources of open space lands by re-vegetating with native plants and using open wood fences adjacent to very sensitive areas for additional protection while still allowing viewing opportunities.
RE-20	Provide recognizable trailheads (entrances) to the trail system as shown on Figure 7-3: Open Space and Trail System. Place a kiosk at trailheads that has a map of how the canyon interfaces with Southeastern San Diego, and interpretive signs on the biological and scenic value of the open space systems.
RE-21	Construct new trails within Southeastern San Diego's public open space as shown on Figure 7-3 Open Space and Trail System.
RE-23	Prepare a comprehensive study to analyze the Chollas Creek open space system's distinctive natural, cultural, and historic resources of a regional nature for consideration of its designation as a Regional Park. If it is designated, prepare a Chollas Creek Regional Park Master Plan.
CS-12	Maintain Best Management Practices in all development to limit erosion and siltation.
CS-13	Preserve and protect open space by preventing incompatible uses, such as offroad activities and off leash dog areas.
CS-14	Implement the recommendations contained in the Chollas Creek Enhancement Program such as removing concrete channels in Chollas Creek, where feasible, to create a more natural function and appearance, and establishing trails and other passive recreation amenities.
CS-15	Remove invasive species from Chollas Creek and restore habitat.
CS-21	Incorporate bioswales or other LID design practices where there is sufficient public rights-of-way throughout the community, and focus specific efforts to capture storm water along roadways in close proximity to Chollas Creek. Implement these features where appropriate, as they may be infeasible due to soil conditions and impacts to utilities.
CS-23	Repair and maintain drainage outfalls and brow ditches that discharge directly to or are within open space lands.

**TABLE 2**  
**ENCANTO NEIGHBORHOODS COMMUNITY PLAN POLICIES PERTAINING TO**  
**BIOLOGICAL RESOURCES**

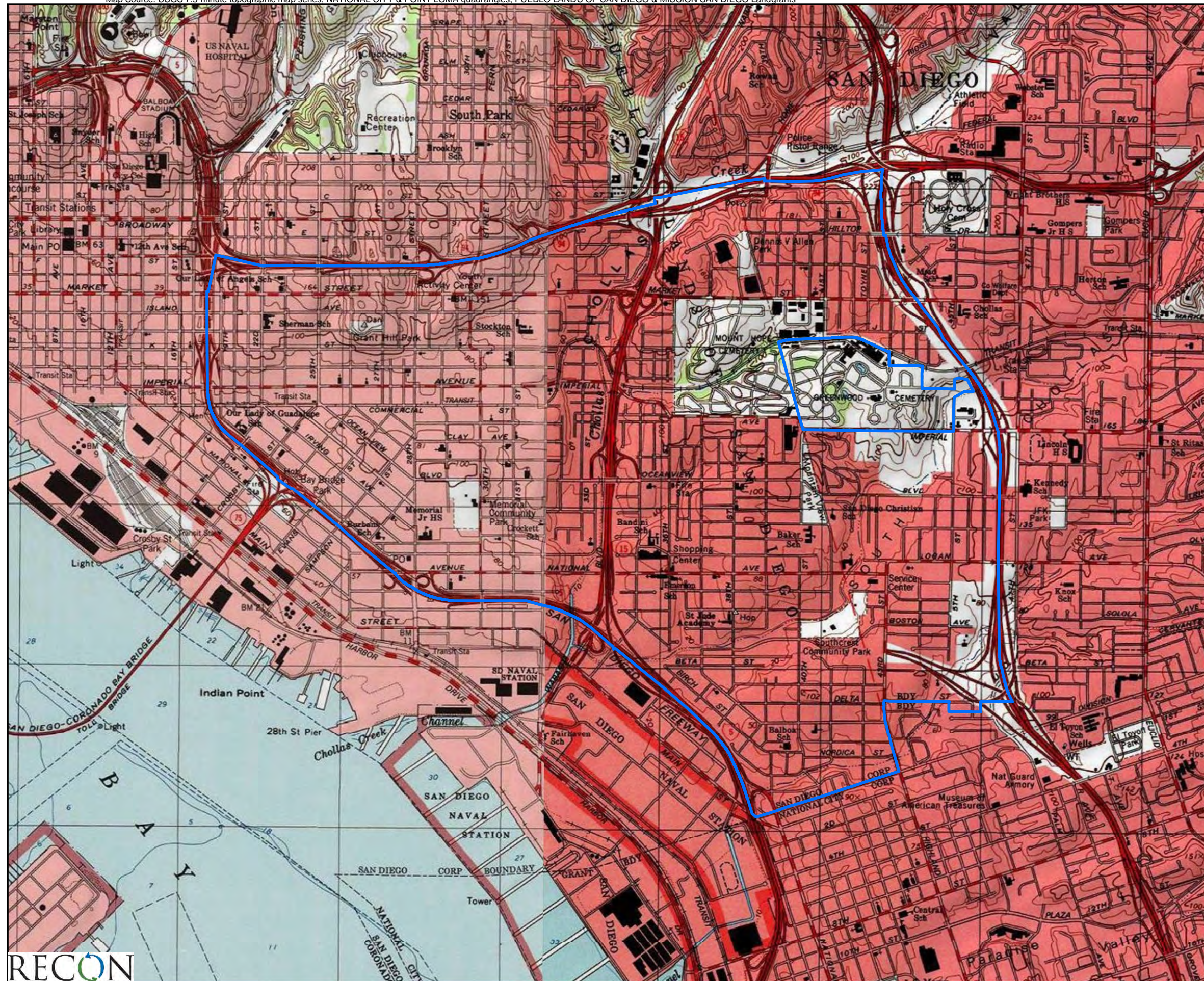
Policy	Description
LU-51	Facilitate creation of new parks and open spaces in non-traditional forms, such as encouraging publicly accessible but privately maintained open space as part of new development. (See also the Recreation Element.)
LU-52	Create a land use framework that preserves and enhances creek corridors as open space and active transportation corridors while limiting potential flooding hazards.
LU-56	Evaluate remnant cemetery land for opportunities for additional open space and parks.
UD-6	Maximize the interface, views and access to the Chollas Creek and its surrounding landscape by orienting development towards or including views on to the creek. Provide pedestrian connections to the creek and incorporate the creek into developments as an amenity.
UD-95	The area's natural base of hillsides, canyons, ravines, streams, and vegetation is an important set of assets that should be protected in new development. Site plans should utilize existing topography and preserve existing vegetation, ravines, watercourses and topographic features.
PF-23	Accomplish flood control within the Chollas Creek waterway through the use of natural and/or landscaped facilities. Prohibit the use of concrete channels.
RE-10	Preserve, protect, and restore canyons and hillsides as important visual amenities and limit public use to designated trails.
RE-11	Provide signs at strategic open space overlooks and trail entryway locations that interpret the biological and scenic value of the open space systems.
RE-12	Provide sufficient human and economic resources to preserve and enhance the existing parks and open space areas serving Encanto Neighborhoods.
RE-19	Protect and enhance the natural resources of open space lands by re-vegetating with native plants and using open wood fences adjacent to very sensitive areas for additional protection while still allowing viewing opportunities.
RE-20	Require all stormwater and urban run-off drainage be filtered or treated before entering into open space lands.
RE-21	Provide recognizable access points (trailheads) to the trail system as shown on Figure 7-3: Open Space and Trail System. Place a kiosk at trailheads that has a map of how the canyon interfaces with Encanto Neighborhoods, and interpretive signs on the biological and scenic value of the open space system.
RE-22	Construct new trails within Encanto Neighborhoods open space as shown on Figure 7-3 Open Space and Trail System.
RE-24	Prepare a comprehensive plan for the management and preservation of City-fee owned canyons within the Multi-Habitat Planning Area (MHPA).
RE-25	Prepare a comprehensive study analyzing Chollas Creek's outstanding, distinctive natural, cultural or historic resources of a regional nature for consideration of designation as a Regional Park. If it is designated, prepare a Chollas Creek Regional Park Master Plan.
CS-12	Implement applicable General Plan Biological and Multiple Species Conservation Program (MSCP) goals and policies as discussed in the Conservation Element Sections CE-G.1-G.5 and CE-H.1-H.9 to reduce the impacts on biological resources, open space, land form, or other environmentally sensitive areas.

**TABLE 2**  
**ENCANTO NEIGHBORHOODS COMMUNITY PLAN POLICIES PERTAINING TO**  
**BIOLOGICAL RESOURCES**  
**(continued)**

CS-13	Minimize or avoid impacts to canyons and other environmentally sensitive lands relocating sewer infrastructure out of these areas where possible, minimizing construction of new sewer access roads into these areas, and redirecting of sewage discharge away from canyons and other environmentally sensitive lands if feasible. (Also see the General Plan Conservation Element Policy CE-B.1.d.)
CS-14	Implement the requirements of the City of San Diego's ESL Regulations, MSCP Subarea Plan, and Biology Guidelines for preservation, mitigation, acquisition, restoration, and management and monitoring of biological resources.
CS-15	Require that hillside development complement the natural character including minimizing disturbance to topography and biological resources.
CS-16	Plan development to minimize grading related to the topography and natural features.
CS-17	Preserve open space areas through covenant of easements, open space designation, or dedication to the City of San Diego.
CS-18	Revegetate graded areas and areas of invasive vegetation with native vegetation to restore biological diversity and minimize erosion and soil instability.
CS-19	Implement the Environmentally Sensitive Lands Regulations for biological resources and steep hillsides and the MSCP policies and guidelines through the project review process.
CS-20	Foster local stewardship and develop positive neighborhood awareness of the open space preserve areas with environmental education programs through local schools, Homeowner's Associations (HOAs), community groups, and other public forums that address the local ecosystem and habitat preservation. Incorporate hands-on learning via neighborhood hikes, or other initiatives that present information in a manner that will increase interest in the natural environment.
CS-21	Maintain best management practices in all development to limit erosion and siltation.
CS-22	Implement the recommendations contained in the Chollas Creek Enhancement Program such as removing concrete channels in Chollas Creek to create a more natural function and appearance, where feasible, and establishing trails and other passive recreation amenities.
CS-23	Remove invasive species from Chollas Creek and restore habitat.
CS-24	Preserve and protect open space by preventing incompatible uses, such as off-road activities, frisbee golf, off leash dog areas, and equestrian use.
CS-33	Incorporate bioswales or other LID design practices where there is sufficient public rights-of-way throughout the community, and focus specific efforts to capture storm water along roadways in close proximity to Chollas Creek, such as Market Street, 47 <sup>th</sup> Street and Euclid Avenue. Implement these features where appropriate, as they may be infeasible due to soil conditions and impacts to utilities.
CS-35	Repair and maintain drainage outfalls and brow ditches that discharge directly to or are within open space lands.








 Southeastern San Diego CPU Area



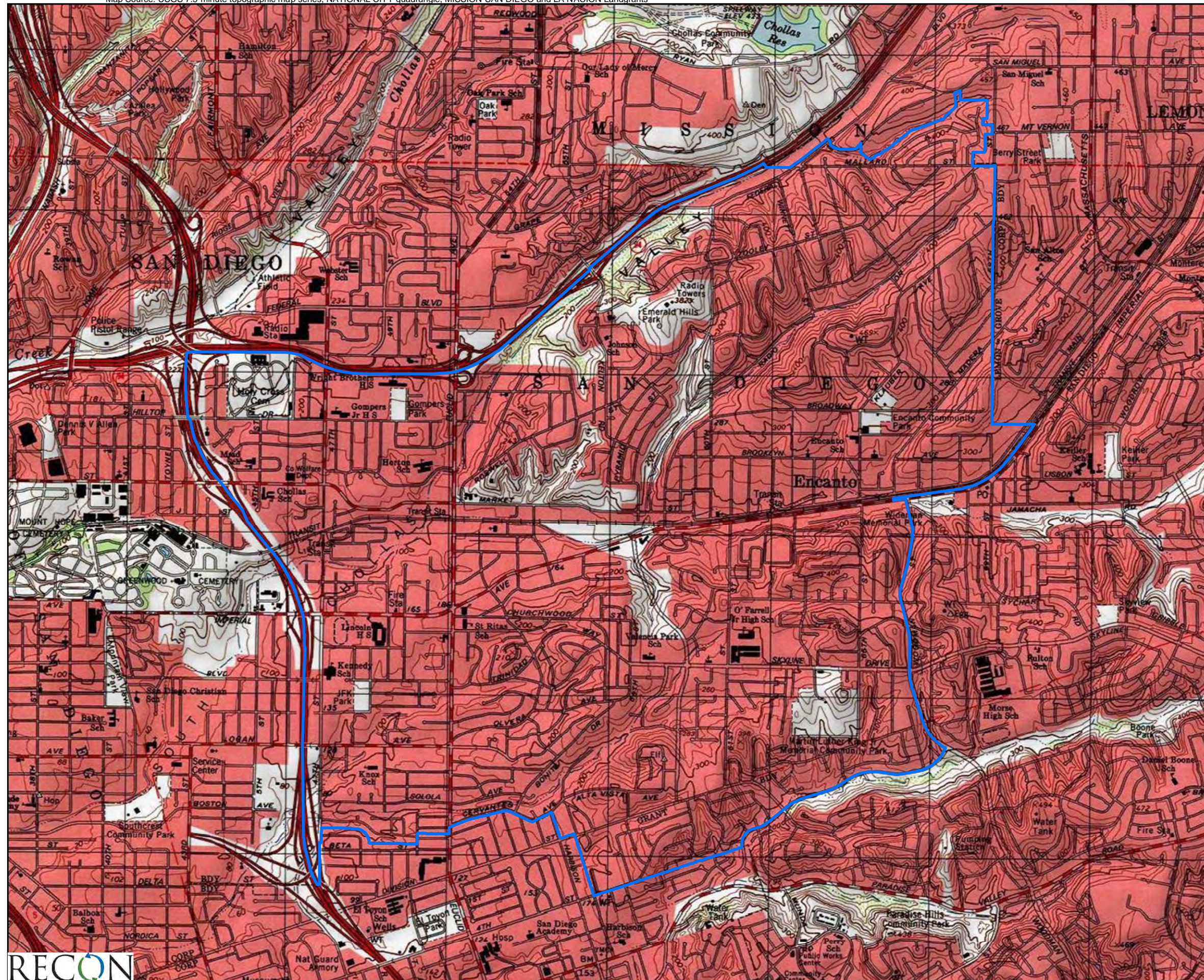
FIGURE 2a

Southeastern San Diego CPU Area  
Location on USGS Map



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Encanto Neighborhoods CPU Area

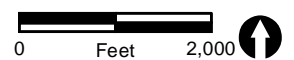


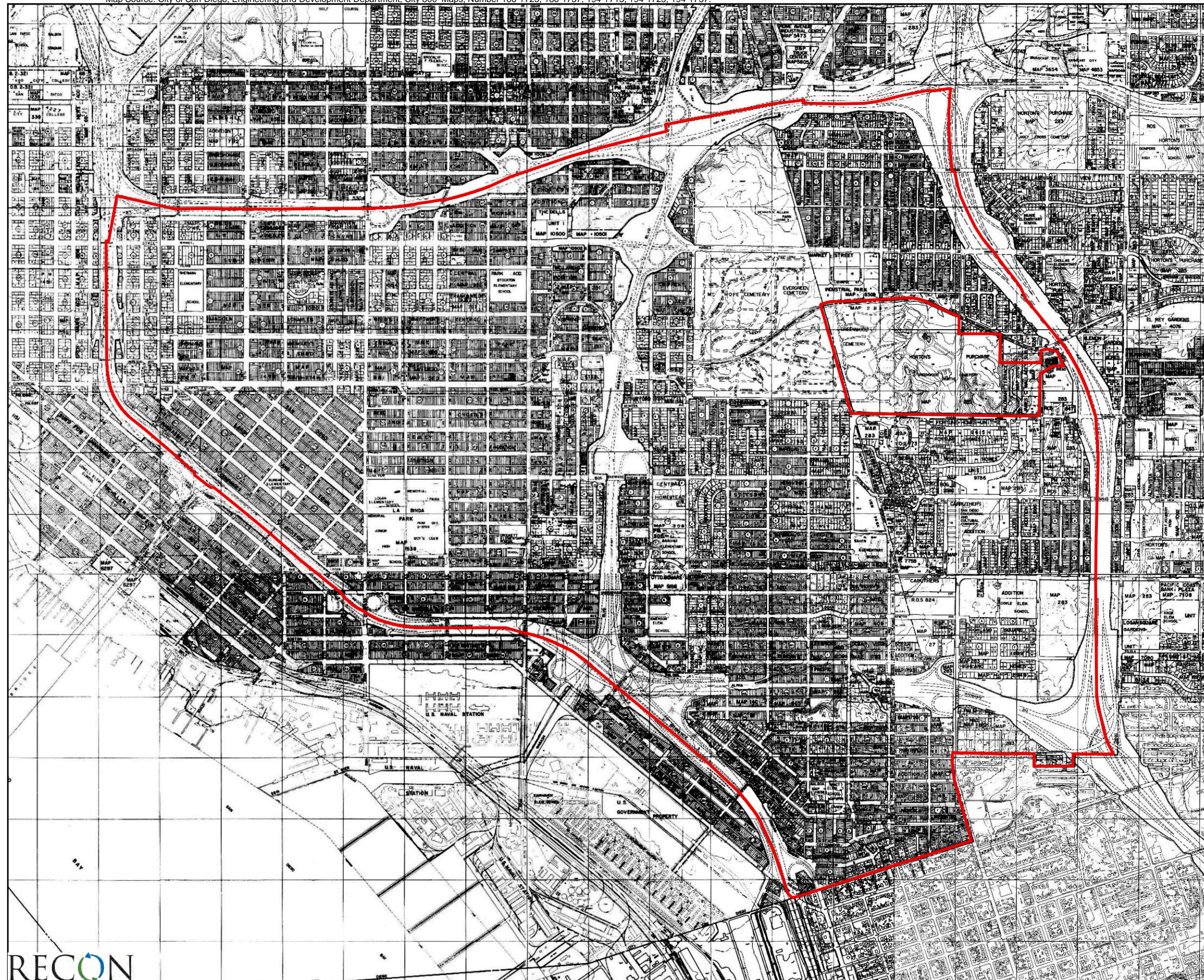
FIGURE 2b

Encanto Neighborhoods CPU Area  
Location on USGS Map



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 Southeastern San Diego CPU Area

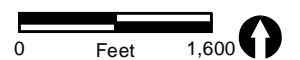


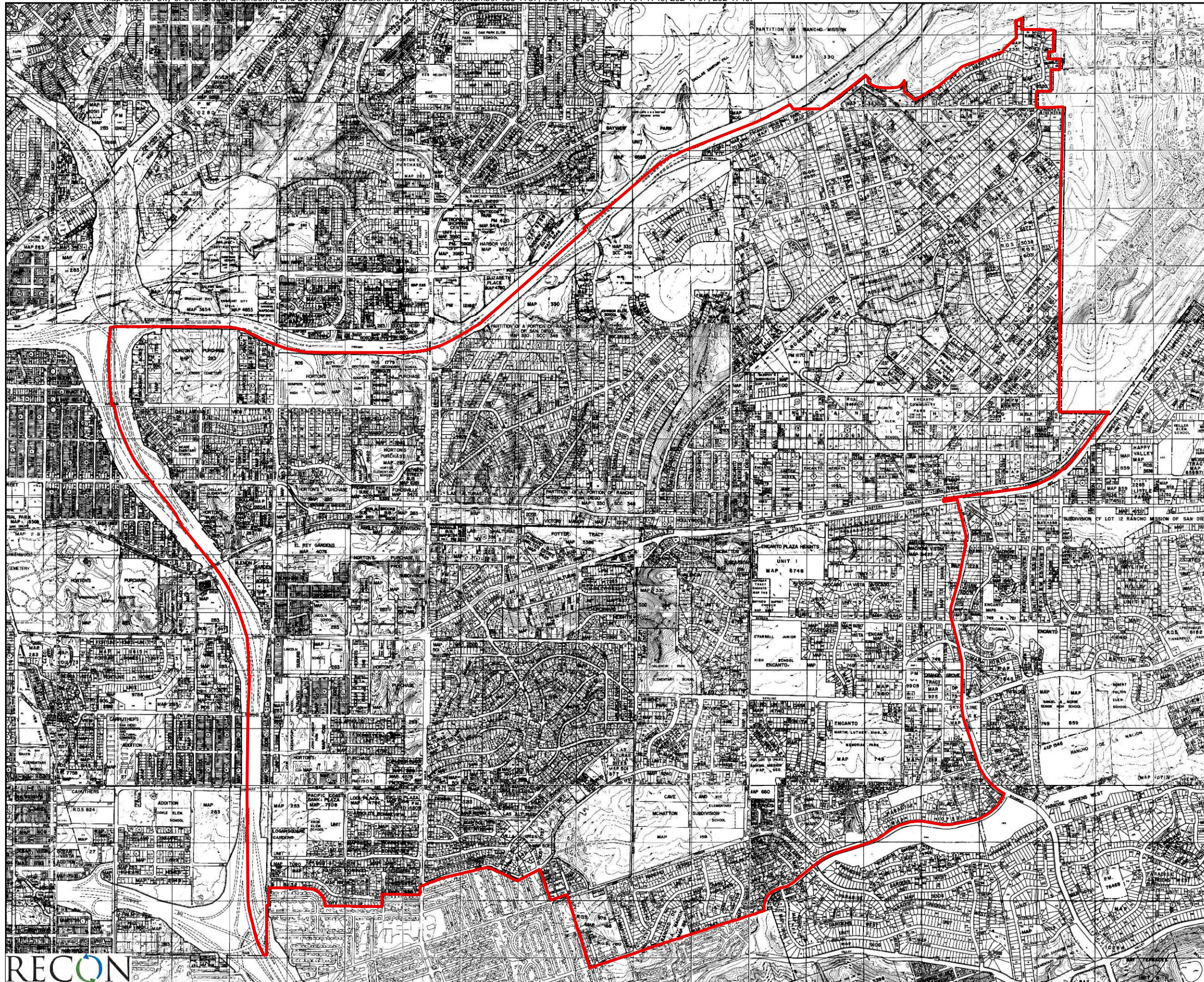
FIGURE 3a

Southeastern San Diego CPU Area  
Location on City 800' Map



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 Encanto Neighborhoods CPU Area


0 Feet 1,700 

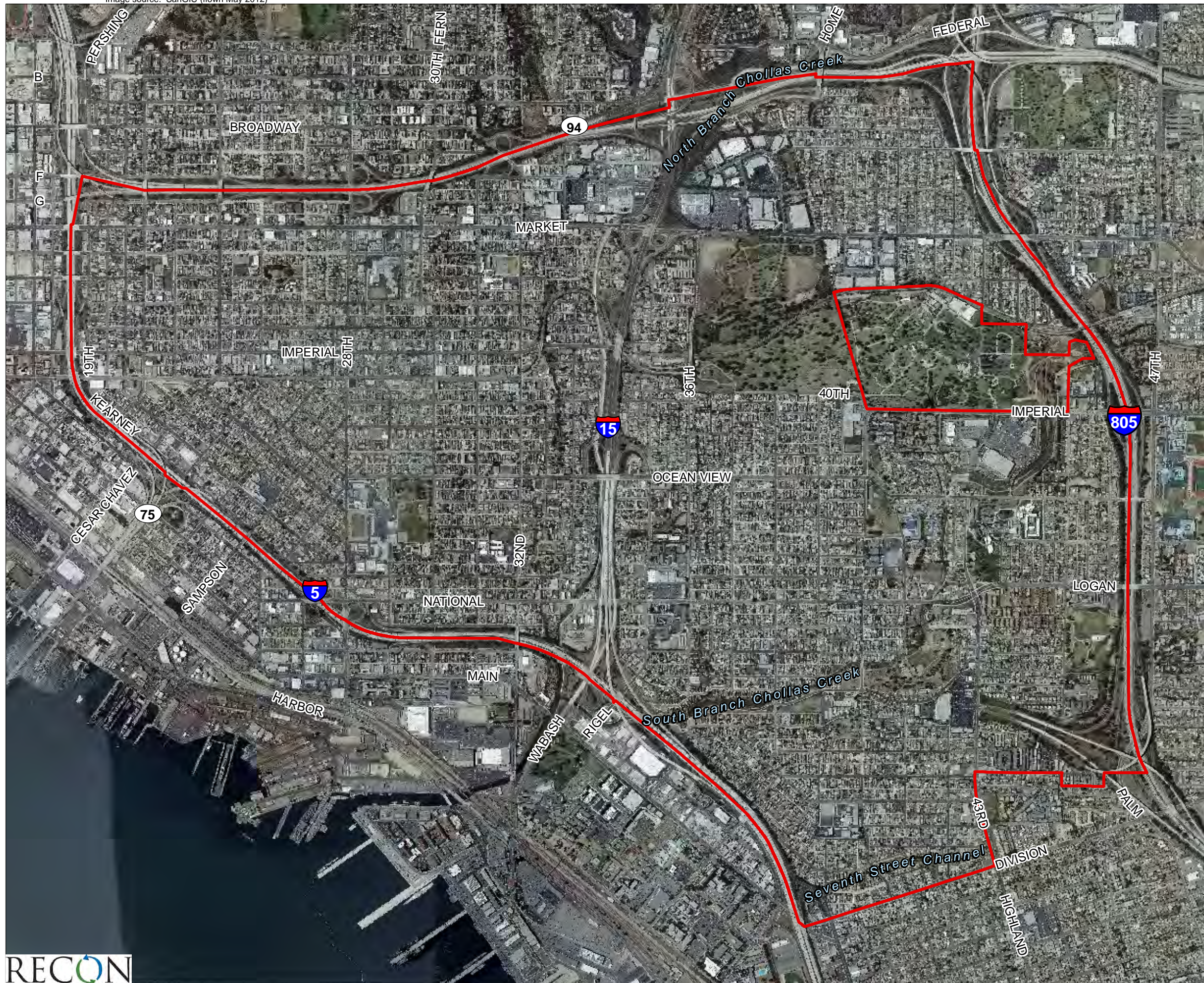
FIGURE 3b

Encanto Neighborhoods CPU Area  
Location on City 800' Map



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 Southeastern San Diego CPU Area

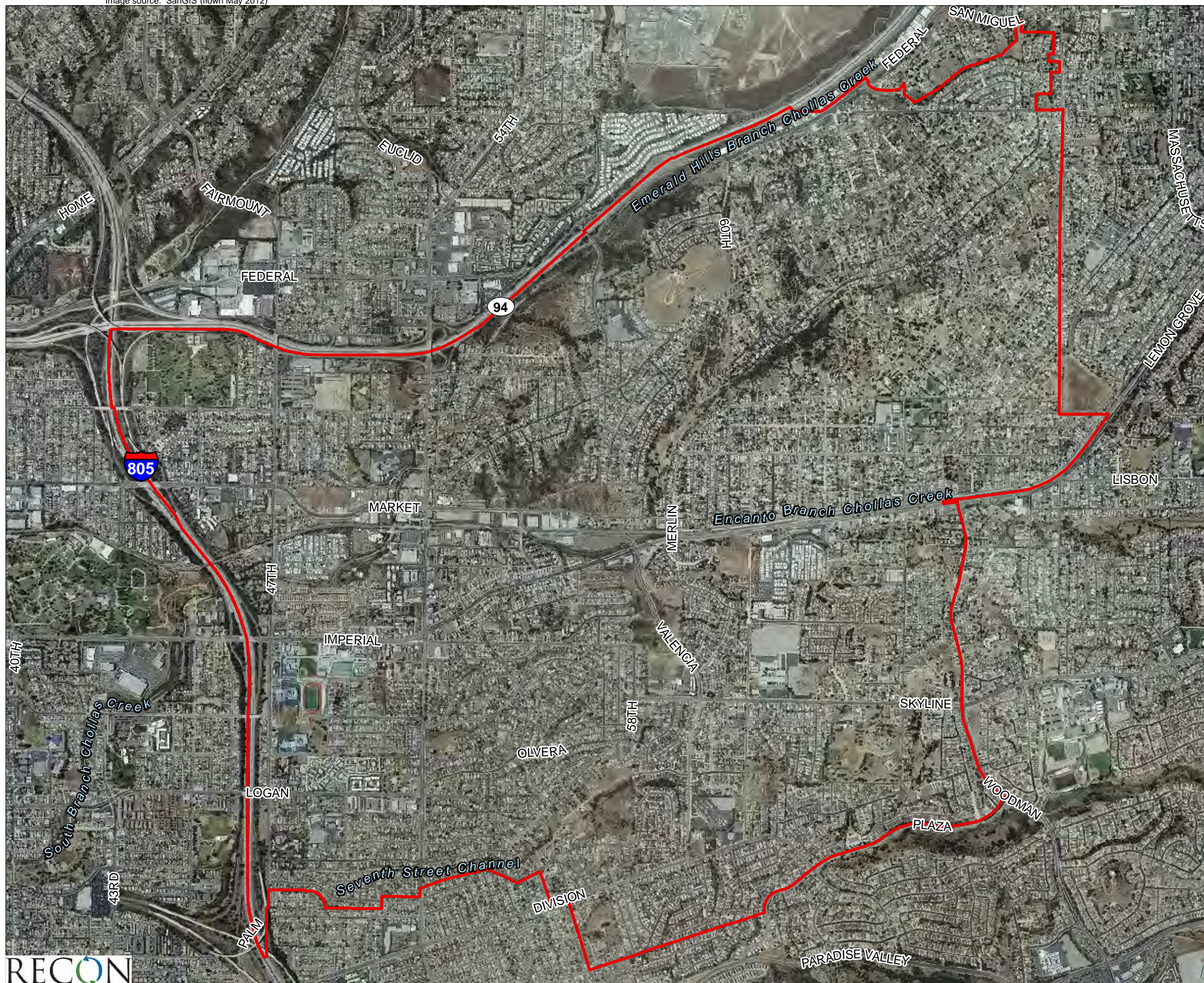


FIGURE 4a  
Southeastern San Diego CPU Area  
Location on Aerial Photograph



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 Encanto Neighborhoods CPU Area



FIGURE 4b

Encanto Neighborhoods CPU Area  
Location on Aerial Photograph



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The FESA also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. The FESA also provides for consultation between USFWS and other federal agencies when an action that may impact federally listed species is proposed by another federal agency; e.g., issuance of a permit for impacts to federal waters by the U.S. Army Corps of Engineers (ACOE) under Section 404 of the federal Clean Water Act.

**Migratory Bird Treaty Act (MBTA).** The MBTA (16 United States Code 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive, and is listed at 50 Code of Federal Regulations (CFR) 10.13. The regulatory definition of “migratory bird” is broad and includes any mutation or hybrid of a listed species and any part, egg, or nest of such birds (50 CFR 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the FESA. The MBTA, which is enforced by the USFWS, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

**Federal Water Pollution Control Act (Clean Water Act; CWA), 1972.** The CWA provides a structure for regulating discharges into the waters of the U.S. Through the CWA, the Environmental Protection Agency is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless a permit under its provisions is acquired. In accordance with Section 404 of the CWA, the ACOE regulates the discharge of dredged or fill material into waters of the U.S. In California, the State Water Resources Control Board and the nine Regional Water Quality Control Boards (RWQCBs) are also responsible for implementing the CWA.

## 3.2 State Regulations

**California Environmental Quality Act (CEQA).** CEQA provides guidelines for defining impacts. Appendix G of the guidelines contains questions that local jurisdictions should evaluate when analyzing a project’s potential impacts. CEQA provides these guidelines so that local jurisdictions are able to determine what constitutes an “adverse effect” and a significant impact to a biological resource.

### **California Fish and Game Code.**

Section 200 of the California Fish and Game Code grants general authority to the Fish and Game Commission to regulate the taking or possession of birds, mammals, fish, amphibians, and reptiles subject to more specific statutory restrictions.

The Porter-Cologne Water Quality Control Act (California Fish and Game Code, Section 1600) provides for statewide coordination of water quality regulations. The State Water Resources Control Board was established as the statewide authority, and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

Under Sections 1600-1607 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources.

California Fish and Game Code Section 1700 et seq. declares state policy to encourage conservation of the living resources of the ocean and other state waters, including species preservation.

The Native Species Conservation and Enhancement Act (California Fish and Game Code Section 1750 et seq.) declares a policy of maintaining sufficient populations of all species of wildlife and native plants and the habitat necessary to ensure their continued existence at optimum levels, and establishes an account to manage private donations toward that end.

The Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.) governs the preservation, protection, and enhancement of endangered or rare native plants.

Sections 1930 through 1933 of the California Fish and Game Code establish the significant natural areas program to protect and preserve important habitats and ecosystems through developing information with respect to natural resources by means of the CNDDDB and other mechanisms.

The California Endangered Species Act (CESA; California Fish and Game Code Sections 2050-2069) declares state policy regarding threatened and endangered species, provides for a listing and review process, prohibits certain acts as damaging to listed species, and provides a consultation process whereby state projects are reviewed for impacts on listed species. Both the Fish and Game Commission and CDFW are given important powers and duties with regard to protection of subject species.

The Wildlife and Natural Areas Conservation Act (California Fish and Game Code Section 2700 et seq.) provides money for habitat protection for species designated by the state as threatened or endangered.

California Fish and Game Code, Sections 3503 states that it is “unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto,” and Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird” unless authorized (State of California 1991).

**Regional Water Quality Control Board.** The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes all waters of the state and all waters of the United States as mandated by both the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act. State waters are all waters that meet one of three criteria (hydrology, hydric soils, or wetland vegetation), and generally include but are not limited to, all waters under the jurisdiction of ACOE and CDFW.

### **3.3 Local Regulations**

#### **3.3.1 Multiple Species Conservation Program/ Multi-Habitat Planning Area**

The Multiple Species Conservation Program (MSCP) is a comprehensive habitat conservation planning program for San Diego County. A goal of the MSCP is to preserve a network of habitat and open space, thereby protecting biodiversity. Local jurisdictions, including the City of San Diego, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms. The primary goal of the City’s MSCP Subarea Plan is to conserve viable populations of sensitive species and regional biodiversity while allowing for reasonable economic growth. To carry out this goal, the City’s MSCP Subarea Plan establishes an area known as the Multi-Habitat Planning Area (MHPA) from which the permanent MSCP preserve will be assembled. Approximately 90 percent of the MHPA lands (52,727 acres) within the City’s subarea will be preserved. The MHPA consists of public and private lands, much of which has been conserved. These lands may: be owned by the City or other agencies; have open space, building restrictive, covenant, or conservation easements over them; or be subject to other restrictive uses based on current or prior City regulatory requirements (i.e., Resource Protection Ordinance or Environmentally Sensitive Lands Regulations), which have protected the overall quality of the biologically sensitive resources.

### **3.3.1.1 Urban Areas**

The SESD and Encanto Neighborhoods CPU areas are part of the Urban Habitat Areas of the MHPA. Urban Habitat Areas within the city of San Diego included in the MHPA are primarily concentrated in existing urbanized locations. The majority of these lands consist of canyons with native habitats in relative proximity to other MHPA areas, providing habitat for native species to reproduce and disperse, or providing shelter and forage for migrating species, mostly avian. The Urban Habitat Areas within the MHPA include existing designated open space such as Chollas Creek and a variety of smaller, dispersed urban canyon systems. No specific management policies or directives have been established for the portion of the Urban Area that occurs within the SESD and Encanto Neighborhoods CPU areas (City of San Diego 1997).

### **3.3.1.2 General Policies and Directives**

Sections 1.4.2 and 1.5.2 of the City of San Diego MSCP Subarea Plan (1997) identify general planning policies, design guidelines, and management directives that apply to all areas of the Subarea Plan. These directives address:

- Land uses allowed within the MHPA;
- Roads and utilities construction and maintenance policies;
- Materials storage;
- Mining, extraction, and processing facilities;
- Flood control;
- Mitigation;
- Restoration;
- Public access, trails, and recreation;
- Litter/trash and material storage;
- Adjacency management issues; and
- Invasive exotics control and removal.

The major issues that require consideration for management in the Urban Habitat Areas include the following, in order of priority, as excerpted from Section 1.5.7 of the City of San Diego MSCP Subarea Plan (1997):

- Intense land uses and activities adjacent to and in covered species habitat;
- Dumping, litter, and vandalism;
- Itinerant living quarters;
- Utility, facility, and road repair, construction, and maintenance activities;
- Exotic (non-native) and invasive plants and animals; and
- Urban runoff and water quality.



### **3.3.2 City of San Diego Environmentally Sensitive Lands Regulations**

The purpose of the Environmentally Sensitive Lands (ESL) Regulations is to “protect, preserve, and, where damaged restore, the *environmentally sensitive lands* of San Diego and the viability of the species supported by those lands. These regulations are intended to assure that *development* occurs in a manner that protects the overall quality of the resources and the natural and topographic character of the area, encourages a sensitive form of *development*, retains biodiversity and interconnected habitats, maximizes physical and visual public access to and along the shoreline, and reduces hazards due to *flooding* in specific areas while minimizing the need for construction of *flood* control facilities. These regulations are intended to protect the public health, safety, and welfare while employing regulations that are consistent with sound resources conservation principles and the rights of private property owners” (City of San Diego 2014).

The ESL defines sensitive biological resources as those lands included within the MHPA as identified in the City of San Diego’s MSCP Subarea Plan and other lands outside the MHPA that contain wetlands; Tier I, II, IIIA, or IIIB vegetation communities; habitat for rare, endangered, or threatened species; or narrow endemic species. Future development proposed in accordance with the CPUs will be required to comply with all applicable ESL regulations.

In Encanto Neighborhoods, the ESL regulations apply to steep hillsides with a slope of at least 25 percent, sensitive biological resources, lands within the City’s MHPA, and flood hazard areas. The ESL regulations prohibit disturbance of natural resources wherever they are located within private as well as public property.

In SESD, the ESL regulations apply to Chollas Creek.

### **3.3.3 City of San Diego General Plan**

The City of San Diego’s General Plan (City of San Diego 2008a) is its guidance document or growth and development. It comprises 10 elements, which provide comprehensive policies for land use and community planning; mobility; urban design; economic prosperity; public facilities, services, and safety; recreation; conservation; noise; historic preservation; and housing. The General Plan presents goals and policies for biological resources in the Conservation Element. Relevant excerpts from this element are included in Table 3.

**TABLE 3**  
**GENERAL PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES**

Policy	Description
CE-B.1	<p>Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.</p> <ul style="list-style-type: none"> <li>a. Utilize Environmental Growth Funds and pursue additional funding for the acquisition and management of MHPA and other important community open space lands.</li> <li>b. Support the preservation of rural lands and open spaces throughout the region.</li> <li>c. Protect urban canyons and other important community open spaces including those that have been designated in community plans for the many benefits they offer locally, and regionally as part of a collective citywide open space system (see also Recreation Element, Sections C and F; Urban Design Element, Section A).</li> <li>d. Minimize or avoid impacts to canyons and other environmentally sensitive land by relocating sewer infrastructure out of these areas where possible, minimizing construction of new sewer access roads into these areas, and redirecting of sewage discharge away from canyons and other environmentally sensitive lands.</li> <li>e. Encourage the removal of invasive plant species and the planting of native plants near open space preserves.</li> <li>f. Pursue formal dedication of existing and future open space areas throughout the City, especially in core biological resource areas of the City's adopted MSCP Subarea Plan.</li> <li>g. Require sensitive design, construction, relocation, and maintenance of trails to optimize public access and resource conservation.</li> </ul>
CE-B.2	<p>Apply the appropriate zoning and ESL regulations to limit development of floodplains and sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands.</p> <ul style="list-style-type: none"> <li>a. Manage watersheds and regulate floodplains to reduce disruption of natural systems, including the flow of sand to the beaches. Where possible and practical, restore water filtration, flood and erosion control, biodiversity and sand replenishment benefits.</li> <li>b. Limit grading and alterations of steep hillsides, cliffs and shoreline to prevent increased erosion and landform impacts.</li> </ul>
CE-B.3	Use natural landforms and features as integrating elements in project design to complement and accentuate the City's form (see also Urban Design Element, Section A).
CE-B.4	Limit and control runoff, sedimentation, and erosion both during and after construction activity.
CE-C.1	Protect, preserve, restore and enhance important coastal wetlands and habitat (tide pools, lagoons and marine canyons) for conservation, research, and limited recreational purposes.
CE-C.2	Control sedimentation entering coastal lagoons and waters from upstream urbanization using a watershed management approach that is integrated into local community and land use plans (see also Land Use Element, Policy LU-E-1).
CE-C.3	Minimize alterations of cliffs and shorelines to limit downstream erosion and to ensure that sand flow naturally replenishes beaches.
CE-C.4	Manage wetland areas as described in Section H, Wetlands, for natural flood control and preservation of landforms.

**TABLE 3**  
**GENERAL PLAN POLICIES RELATING TO BIOLOGICAL RESOURCES**  
**(continued)**

CE-C.6	Implement watershed management practices designed to reduce runoff and improve the quality of runoff discharged into coastal waters.
CE-E.7	Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.
CE-G.1	<p>Preserve natural habitats pursuant to the MSCP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability.</p> <ul style="list-style-type: none"> <li>a. Educate the public about the impacts invasive plant species have on open space.</li> <li>b. Remove, avoid, or discourage the planting of invasive plant species.</li> <li>c. Pursue funding for removal of established populations of invasive species within open space.</li> </ul>
CE-G.2	Prioritize, fund, acquire, and manage open spaces that preserve important ecological resources and provide habitat connectivity.
CE-G.3	Implement the conservation goals/policies of the City's MSCP Subarea Plan, such as providing connectivity between habitats and limiting recreational access and use to appropriate areas.
CE-G.4	Protect important ecological resources when applying floodplain regulations and development guidelines.
CE-G.5	Promote aquatic biodiversity and habitat recovery by reducing hydrological alterations, such as grading a stream channel.
CE-H.1	Use a watershed planning approach to preserve and enhance wetlands.
CE-H.2	Facilitate public-private partnerships that improve private, federal, state and local coordination through removal of jurisdictional barriers that limit effective wetland management.
CE-H.3	Seek state and federal legislation and funding that support efforts to research, classify, and map wetlands including vernal pools and their functions, and improve restoration and mitigation procedures.
CE-H.4	Support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values.
CE-H.5	Support research and demonstration projects that use created wetlands to help cleanse urban and storm water runoff, where not detrimental to natural upland and wetland habitats.
CE-H.6	Support educational and technical assistance programs, for both planning and development professionals, and the general public, on wetlands protection in the land use planning and development process.
CE-H.7	Encourage site planning that maximizes the potential biological, historic, hydrological and land use benefits of wetlands.
CE-H.8	Implement a "no net loss" approach to wetlands conservation in accordance with all city, state, and federal regulations.
CE-J.1	Develop, nurture, and protect a sustainable urban/community forest.

SOURCE: City of San Diego General Plan Conservation Element (City of San Diego 2008a).

### **3.3.4 Chollas Creek Enhancement Program**

The Chollas Creek Enhancement Program presents a community vision for development, City policies, and design/development guidelines (City of San Diego 2002). This program also provides an implementation strategy for maintaining natural areas; promoting new development that integrates buildings, open space, and the creek into successful and useable community spaces; restoring the creek's natural conditions, and enhancing the creek corridors with linear parks and trails. This program covers portions of the Chollas Creek drainage system that traverse both the SESD and Encanto Neighborhoods CPU areas.

## **4.0 Methods**

### **4.1 Literature Review**

RECON Environmental, Inc. (RECON) biologists conducted reviews of existing literature relevant to the biological resources known from the CPU areas. The following sources were reviewed:

- Existing Conditions Reports for the Southeastern San Diego and Encanto Neighborhoods Community Plan Updates (Dyett & Bhatia 2013a, 2013b);
- Northwest Village Creek Biological Technical Report (REC Consultants, Inc. 2012);
- U.S. Geological Survey (USGS) topographic maps for the area;
- aerial photographs;
- San Diego Association of Governments (SANDAG) vegetation mapping (SANDAG 2010, 2012);
- City of San Diego vernal pool mapping (City of San Diego 2008b) and USFWS National Wetlands Inventory (USFWS 2012); and
- CNDDDB (State of California 2014a), SanBIOS (County of San Diego 2010), and USFWS All Species Occurrences Database (USFWS 2014a); San Diego Natural History Museum's (SDNHM) San Diego County Plant Atlas database (SDNHM 2014).

Future projects implemented as part of the CPU land use plans would require subsequent environmental review, including project-specific biology surveys and reports.

## 4.2 Vegetation Communities

The base vegetation community mapping is taken primarily from the SANDAG digital files for San Diego County (SANDAG 2010) and western San Diego County (SANDAG 2012). This vegetation mapping was updated using information from an aerial photograph of the area (San Diego Geographic Information Source [SanGIS] 2012). Updates to the vegetation map included areas that were mapped as native vegetation or disturbed habitat (i.e., disturbed land), but showed as developed on the 2012 aerial photo. Conversely, areas that were mapped as developed but appeared to support native vegetation were also updated.

Vegetation community classifications follow Holland Code (Holland 1986) as updated by Oberbauer et al. (2008). However, for purposes of this report, “disturbed habitat” as defined by Oberbauer is classified as “disturbed land” for consistency with the City of San Diego Biology Guidelines (2012). Assessments of the sensitivity of habitats are based primarily on the California Native Plant Society (CNPS; 2014), the CNDDDB (State of California 2014a), City of San Diego (1997 and 2012), USFWS (2013), and Holland (1986).

Sensitive habitat types are those identified by the CNDDDB (State of California 2014a), Holland (1986), and the City of San Diego (1997). Under the MSCP, upland vegetation communities have been divided into four tiers of sensitivity. Upland vegetation communities that are classified as Tier I (rare uplands), Tier II (uncommon uplands), or Tier III (common uplands) are considered sensitive by the City. Tier IV (other uplands) vegetation communities are not considered sensitive.

All wetland vegetation communities are considered sensitive by the City of San Diego and wetland resource agencies. These communities are regulated by the City, USFWS, and RWQCB and some are regulated by ACOE and CDFW. Case-by-case analysis would be needed to determine what agencies (City, USFWS, RWQCB, ACOE, or CDFW) might have regulatory authority on any wetland resources proposed to be impacted.

## 4.3 Sensitive Plant Species

Sensitive plant species mapped locations are from the CNDDDB (State of California 2014a), SDNHM's San Diego County Plant Atlas database (SDNHM 2014), SanBIOS (County of San Diego 2010), and other biological resource documents reviewed from the CPU areas (see Section 4.1, Literature Review). Nomenclature for plant species follows Hickman (1993) as updated by The Jepson Online Interchange (University of California 2014). Assessments of the sensitivity of species are based primarily on CNPS (2014), State of California (2014b, 2014c), City of San Diego (1997, 2012), and USFWS (2013).

For purposes of this report, a species is considered sensitive if it: (1) is listed by state or federal agencies as threatened or endangered or is a candidate or is proposed for such listing; (2) is considered rare, endangered, or threatened by the State of California and/or listed in the CNDDDB (State of California 2014b, 2014c); (3) is a narrow endemic or covered species in the City of San Diego MSCP Subarea Plan (City of San Diego 1997); (4) has a CNPS Rare Plant Ranking of 1B or 2 on the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2014); or (5) is considered rare, sensitive, or noteworthy by local conservation organizations or specialists. Noteworthy plant species are considered to be those that have a CNPS Rare Plant Ranking of 3 and 4 on the CNPS *Inventory*.

Assessments for the potential occurrence of sensitive or noteworthy species are based upon known ranges and habitat preferences for the species and species occurrence records from the CNDDDB, USFWS (2014a), and the literature review.

## 4.4 Sensitive Wildlife Species

Sensitive wildlife species mapped locations are from the CNDDDB (State of California 2014a), SanBIOS (County of San Diego 2010), and the other biological resource documents reviewed from the CPU areas (see Section 4.1, Literature Review). Zoological nomenclature for invertebrates is in accordance with Eriksen and Belk (1999) and Lotts and Naberhaus (2014); for birds, American Ornithologists' Union Checklist (2013) and Unitt (2004); for mammals, Baker et al. (2003); and for amphibians and reptiles, Crother et al. (2008). Assessments of the sensitivity of species are based primarily on State of California (2011, 2014d), City of San Diego (1997, 2012), and USFWS (2013).

For purposes of this report, a wildlife species is considered sensitive if it: (1) is listed by state or federal agencies as threatened or endangered or is a candidate or is proposed for such listing; (2) is considered rare, endangered, or threatened by the State of California and/or listed in the CNDDDB (State of California 2011, 2014d); (3) is a covered species in the City of San Diego MSCP Subarea Plan (City of San Diego 1997); or (4) is considered rare, sensitive, or noteworthy by local conservation organizations or specialists. In addition, raptors (birds of prey), active raptor nests, and migratory birds are also protected by the California Fish and Game Code and MBTA.

Assessments for the potential occurrence of sensitive or noteworthy species are based upon known ranges and habitat preferences for the species and species occurrence records from the CNDDDB, USFWS (2014a), and the literature review.

## **4.5 Jurisdictional Wetlands and Waters**

Vegetation and stream mapping serve as a baseline to aid in the preliminary determination of the presence of ACOE wetlands and waters of the U.S.; CDFW riparian habitat and streambed; and RWQCB and City of San Diego jurisdictional areas within the CPU areas. USGS topographic quadrangle maps, the National Wetlands Inventory mapping (USFWS 2012), and other biological resource documents for the CPU areas were reviewed to prepare preliminary mapping of riparian and wetland habitats, stream courses, and ponds that are likely under the jurisdiction of ACOE, CDFW, RWQCB, or City of San Diego.

## **5.0 Existing Conditions**

### **5.1 Environmental Setting**

#### **5.1.1 Climate, Topography, and Hydrology**

The SESD and Encanto Neighborhoods CPU areas are located in coastal, southern San Diego County, within six miles of San Diego Bay. San Diego County is generally characterized by warm, dry summers and mild winters, with annual precipitation typically falling between November and March. The CPU areas are largely influenced by the coastal climate weather regime with moderating sea breezes, frequent formation of marine layer during spring and early summer, and milder summer temperatures than occur inland. However, with a more inland location relative to the SESD CPU Area, the Encanto Neighborhoods CPU Area tends to experience slightly higher temperatures and less substantial marine layer cover.

The SESD CPU Area comprises three general upland areas divided by Chollas Creek. The Main Branch of Chollas Creek, which roughly parallels Interstate 15 (I-15), separates the western half from the eastern half, and the South Branch of Chollas Creek, which runs east-west, further divides the eastern half. The Seventh Street Channel, which carries flow from Paleta Creek, occurs near the southernmost extent of the CPU area, roughly paralleling the southern boundary. The western half of the CPU area is gently rolling with a prominent knoll at Grant Hill Park. The eastern and southern areas also vary from level to gently rolling, generally descending in elevation from north to south. Elevations range from approximately 10 feet above mean sea level (AMSL) along Chollas Creek and the Seventh Street Channel in the southern section of the CPU area to approximately 190 feet AMSL at Grant Hill Park in the northwest and 200 feet AMSL in the northeast. Some of the steepest slopes within the CPU area are found along the edges of the creek floodplains.

The three drainages present in the SESD CPU Area—the Main and South branches of Chollas Creek and the Seventh Street Channel—have each been substantially altered by development and currently comprise a mix of culverted, bridged, concrete-lined, and earthen channels. Similarly, some sections carry intermittent flow, while others maintain perennial flow. Chollas Creek and the Seventh Street Channel are located within the Pueblo Watershed, which ultimately conveys flow into the San Diego Bay.

The Encanto Neighborhoods CPU Area is composed of a series of terraces intersected by canyons ranging from small ephemeral drainages to major creek corridors. Elevation ranges from approximately 80 feet AMSL in the southwestern portion to 460 feet AMSL in the northeast. The Emerald Hills Branch of Chollas Creek generally follows the south side of SR-94 before turning southwest and meeting the Encanto Branch of Chollas Creek in the central-eastern section of the CPU area. The Encanto Branch of Chollas Creek roughly follows Imperial Avenue east to west and bisects the CPU area. Where these branches converge, the South Branch of Chollas Creek continues to the southwest. The Seventh Street Channel also runs through the southern section of the CPU area.

As in the SESD CPU Area, these drainages have been substantially altered by development and currently comprise a mix of concrete-lined, partially concreted, and earthen channels. Similarly, some sections carry intermittent flow, while others maintain perennial flow. Chollas Creek and the Seventh Street Channel are located within the Pueblo Watershed, which ultimately conveys flow into the San Diego Bay.

## **5.1.2 Existing Land Use**

Existing land use within the SESD CPU Area is primarily residential, with a mixture of single-family and multi-family housing occupying 60 percent of the total CPU area (Dyett & Bhatia 2013a). Remaining land uses include the following, in order of greatest to least area occupied: community facilities, commercial uses, industrial uses, cemetery, parks and open space, and vacant land.

Existing land use within the Encanto Neighborhoods CPU Area is also dominated by residential development, with single-family and multi-family housing occupying 70 percent of the total CPU area (Dyett & Bhatia 2013b). Remaining land uses include the following, in order of greatest to least area occupied: parks and open space, community facilities, vacant land, industrial uses, commercial uses, and cemetery.

## **5.1.3 Soils**

The U.S. Department of Agriculture (USDA; 1973) mapped the following soil series in the SESD CPU Area:

- Grangeville fine sandy loam,



- Huerhuero loam,
- Huerhuero-Urban land complex,
- Olivenhain-Urban land complex,
- Terrace escarpments,
- Made land, and
- Urban land.

Dominant soils mapped within the SESD CPU Area include urban land and Huerhuero-Urban land complex. Urban land comprises more than half of the SESD CPU Area, and Huerhuero-Urban land complex is the dominant soil series in the eastern portion. Huerhuero soils are within the Alfisol soil order, which characteristically has a massive, hard surface layer and horizons of clay accumulation with high base saturation. Huerhuero soils have a lower salt content in the clay layer than other soils in the Alfisol order.

The USDA (1973) mapped the following soil series in the Encanto Neighborhoods CPU Area:

- Carlsbad gravelly loamy sand,
- Diablo clay,
- Diablo-Urban land complex,
- Grangeville fine sandy loam,
- Huerhuero loam,
- Huerhuero-Urban land complex,
- Las Flores loamy fine sand,
- Las Flores-Urban land complex,
- Linne clay loam,
- Made land,
- Olivenhain cobbly loam,
- Olivenhain-Urban land complex,
- Redding-Urban land complex,
- Salinas clay, and
- Terrace escarpments.

Dominant soils within the Encanto Neighborhoods CPU Area include Huerhuero-Urban land complex, Las Flores loamy fine sand, Las Flores-Urban land complex, Diablo clay, and Diablo-Urban land complex. Huerhuero-Urban land complex is the dominant soil type within the western half of the Encanto Neighborhoods CPU Area. Las Flores loamy fine sand and Las Flores-Urban land complex are dominant soil types in the northeastern quarter, and Diablo clay and Diablo-Urban land complex are dominant soil types in the southeastern quarter of the Encanto Neighborhoods CPU Area. Like Huerhuero, Las Flores soils are in the Alfisol soil order. As described above, Huerhuero and Las Flores characteristically have a massive, hard surface layer, horizons of clay accumulation with high base saturation, and a lower salt content in the clay layer than other Alfisols. Diablo clay is in the Vertisol soil order and is an upland soil formed from soft sandstone and shale.

## 5.2 Vegetation Communities

The following 13 vegetation communities and land cover types have been mapped within the SESD and Encanto Neighborhoods CPU areas: southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, vernal pool, non-native riparian, maritime succulent scrub, Diegan coastal sage scrub, Diegan coastal sage scrub: coastal form, valley and foothill grassland, non-native grassland, non-native vegetation, disturbed land, and urban/developed (SANDAG 2010, 2012). The approximate acreages of these vegetation communities and land cover types are listed by CPU area in Table 4. Vegetation communities and land cover types mapped within the CPU areas are shown on Figures 5a-b and described below.

**TABLE 4**  
**VEGETATION COMMUNITIES AND LAND COVER TYPES WITHIN THE SOUTHEASTERN**  
**SAN DIEGO AND ENCANTO NEIGHBORHOODS CPU AREAS**

Vegetation Community/Land Cover Type (Holland Code, as modified by Oberbauer et al. 2008)	Southeastern (acres)	Encanto (acres)
Southern cottonwood-willow riparian forest (61330)	–	2.3
Southern riparian scrub (63300)	0.7	1.5
Mule fat scrub (63310)	–	0.3
Vernal pool (44000)	–	<0.1 <sup>‡</sup>
Non-native riparian (65000)	3.2	3.8
Maritime succulent scrub (32400)	–	47.6
Diegan coastal sage scrub (32500)	5.4	94.9
Diegan coastal sage scrub: coastal form (32510)	–	5.8
Valley and foothill grassland (42000)	–	12.1
Non-native grassland (42200)	0.2	40.8
Non-native vegetation (11000)	–	28.0
Disturbed land	53.0	203.9
Urban/developed (12000)	2,866.4	3,369.6
<b>TOTAL</b>	<b>2,928.9*</b>	<b>3,810.6*</b>

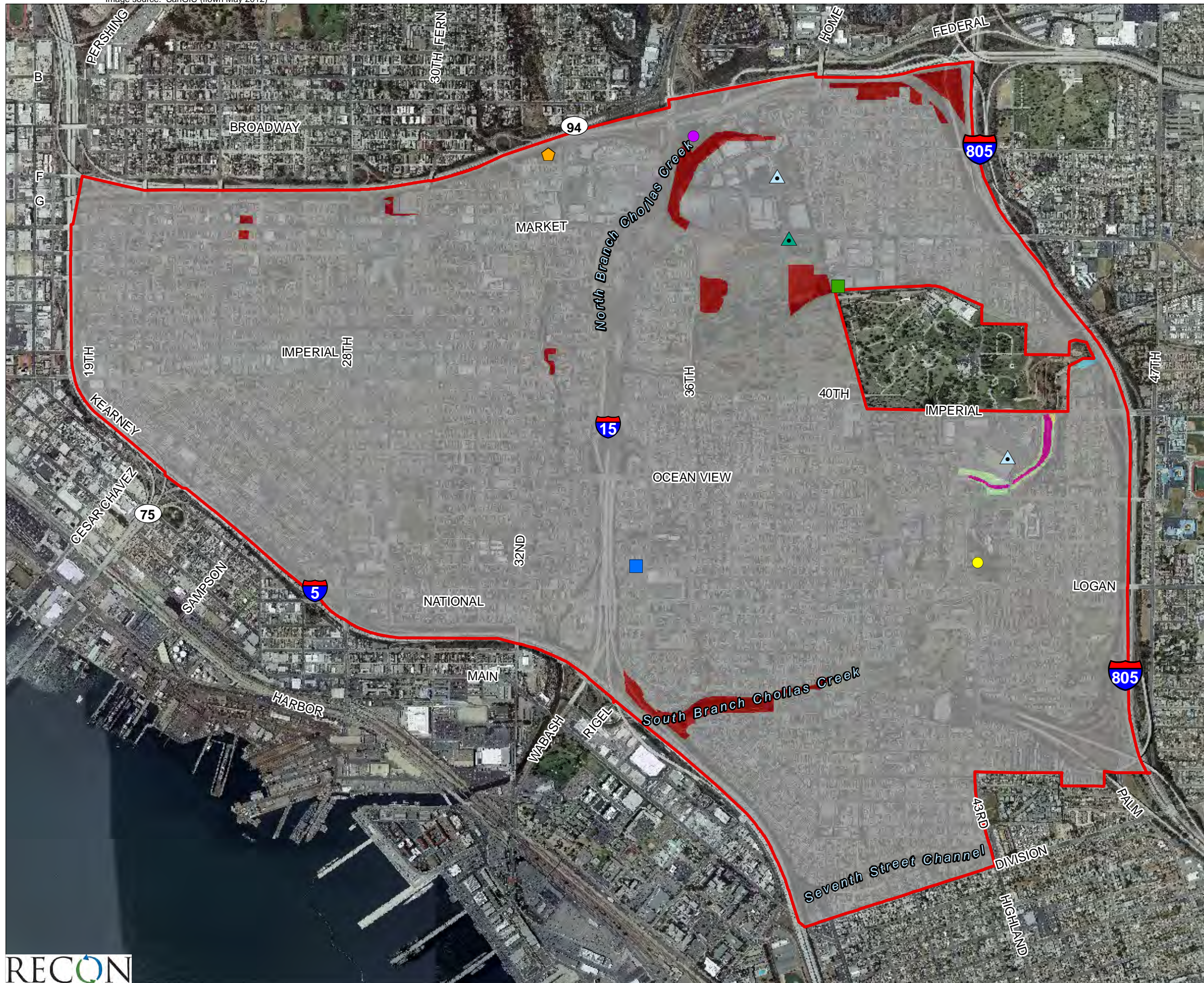
\*Acreages vary slightly from those presented in the CPUs due to rounding.

<sup>‡</sup> equals 963 square feet.

### 5.2.1 Wetland Vegetation Communities

Wetland vegetation communities are dominated by plant species adapted to soils that have periods of prolonged saturation. The CPU areas support five wetland vegetation communities: southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, vernal pool, and non-native riparian. These communities generally occur as small stands within large expanses of development. These vegetation communities are described below. All are regulated by the City and RWQCB, and some are regulated by the ACOE, USFWS, and the CDFW.





Southeastern San Diego CPU Area

**Vegetation Communities and Land Cover Types**

- Diegan Coastal Sage Scrub
- Southern Riparian Scrub
- Non-Native Grassland
- Non-Native Riparian
- Disturbed Land
- Urban/Developed

**Sensitive Species Observations**

**Flora**

- California Adolphia
- San Diego Barrel Cactus

**Fauna**

- Cooper's Hawk
- Least Bell's Vireo
- Mexican Long-tongued Bat
- Western Bonneted Bat
- Quino Checkerspot Butterfly

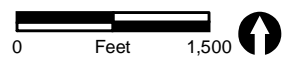


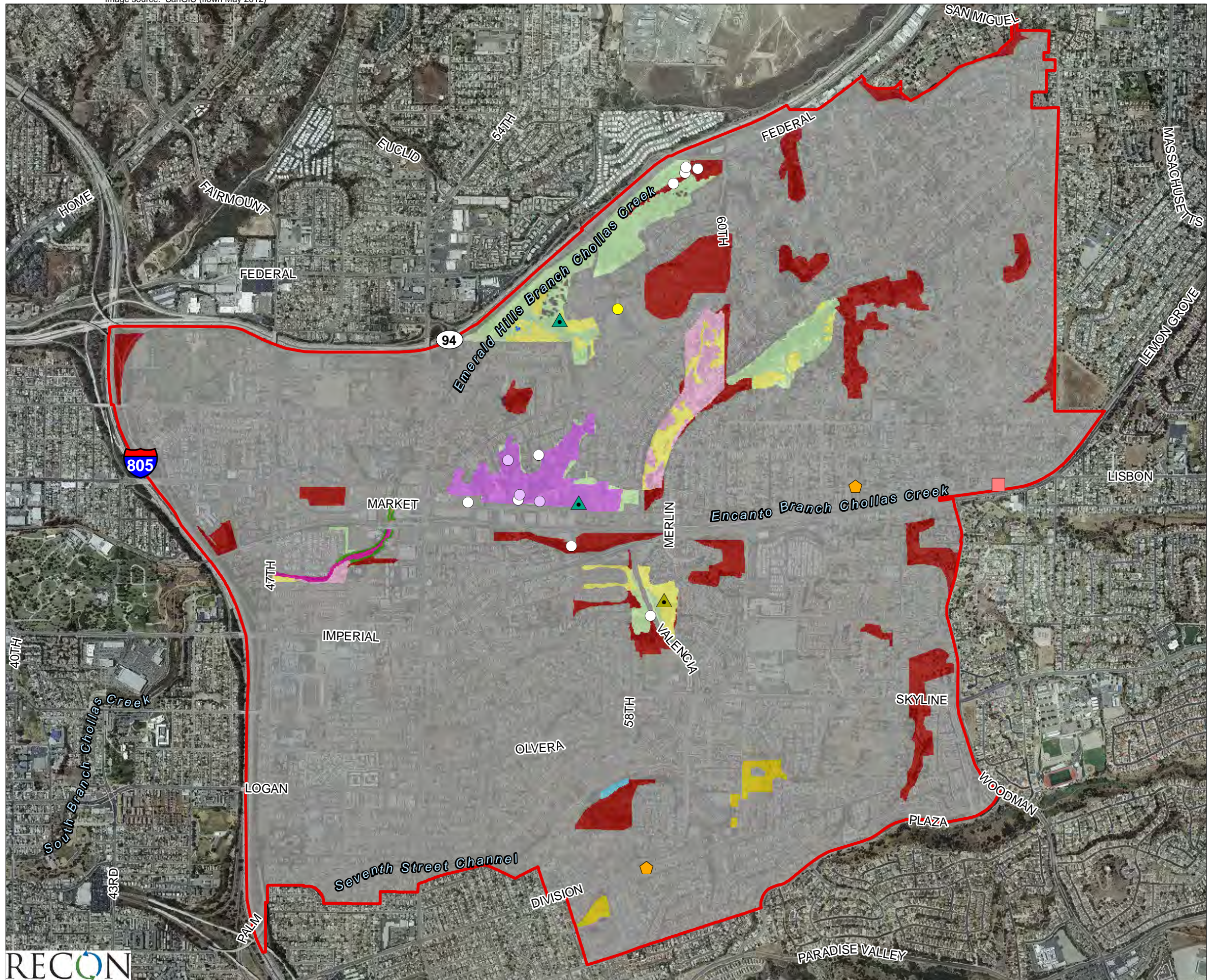
FIGURE 5a

Existing Biological Resources  
within the Southeastern San Diego CPU Area



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Encanto Neighborhoods CPU Area

**Vegetation Communities and Land Cover Types**

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub: Coastal Form
- Maritime Succulent Scrub
- Mule Fat Scrub
- Southern Cottonwood-Willow Riparian Forest
- Southern Riparian Scrub
- Vernal Pool
- Valley and Foothill Grassland
- Non-Native Grassland
- Non-Native Riparian
- Non-Native Vegetation
- Disturbed Land
- Urban/Developed

**Sensitive Species Observations**

**Flora**

- California Adolphia
- Otay Tarplant

**Fauna**

- Coastal Cactus Wren
- Coastal California Gnatcatcher
- Cooper's Hawk
- Western Red Bat
- Quino Checkerspot Butterfly

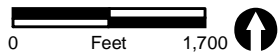


FIGURE 5b

Existing Biological Resources  
within the Encanto Neighborhoods CPU Area



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### **5.2.1.1 Southern Cottonwood-Willow Riparian Forest**

Southern cottonwood-willow riparian forest is typically an open, seral type of riparian forest dominated by tall, broad-leaved, winter-deciduous trees, Fremont cottonwood (*Populus fremontii*), black cottonwood (*P. trichocarpa*), and tree willows (*Salix gooddingii*, *S. lasiolepis*, *S. lasiandra*), with an understory of shrubby willows. Other characteristic plant species within this community include mugwort (*Artemisia douglasiana*), mule fat (*Baccharis salicifolia*), and hoary nettle (*Urtica dioica* ssp. *holosericea*). This community typically occurs along sub-irrigated and frequently overflowed lands along perennially wet rivers and streams (Oberbauer et al. 2008).

Southern cottonwood-willow riparian forest has been mapped along the banks of the southern extent of the Emerald Hills Branch of Chollas Creek and the upper reach of the South Branch of Chollas Creek in the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2012).

### **5.2.1.2 Southern Riparian Scrub**

Southern riparian scrub is typically dominated by small trees or shrubs and lacks tall, riparian trees. This community is often found along major waterways in areas that are subject to flood scour, but has become more widely established due to increased urban and agricultural runoff. Common plant species often observed within this community include willow species such as arroyo willow (*Salix lasiolepis*), mule fat, and broom baccharis (*Baccharis sarothroides*) (Oberbauer et al. 2008).

Small patches of southern riparian scrub have been mapped along the Seventh Street Channel in the southern portion of the Encanto Neighborhoods CPU Area, and along the South Branch of Chollas Creek, immediately west of I-805, at the eastern edge of the SESD CPU Area (see Figures 5a-b; SANDAG 2010).

### **5.2.1.3 Mule Fat Scrub**

Mule fat scrub is an early seral riparian scrub community dominated by mule fat and maintained by frequent flooding. This community is often distributed along ephemeral streams.

One small patch of mule fat scrub has been mapped along the southern extent of the Emerald Hills Branch of Chollas Creek in the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2012).

### **5.2.1.4 Vernal Pool**

Vernal pools are shallow, isolated, seasonal wetlands distinguished from other ephemeral wetlands in the region by characteristic plant and animal species (Oberbauer et al. 2008). The micro-relief surrounding vernal pools typically consists of

small mima mounds or hummocks. In San Diego County, vernal pools may only retain pooled water for approximately two weeks and will be dry for the vast majority of the year. In San Diego County, vernal pools can be characterized as hardpan or claypan vernal pools, which are distinguished by the soil type on which they occur, the type of impervious subsoil layer, and vegetation. Claypan vernal pools are primarily found on Otay Mesa on Stockpen soils, but are also located in other areas of San Diego County and into Baja California. Hardpan vernal pools are primarily found north of Otay Mesa (Holland 1986).

Three vernal pools have been mapped within Emerald Hills Canyon Open Space, south of SR-94 and west of Kelton Road, in the central-northern section of the Encanto Neighborhoods CPU Area (see Figure 5b; City of San Diego 2008b).

### **5.2.1.5 Non-native Riparian**

Non-native riparian consists of dense riparian thickets where non-native, invasive plant species account for greater than 50 percent of the total vegetative cover. Characteristic species typically include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), eucalyptus (*Eucalyptus* spp.), palms (*Phoenix* spp., *Washingtonia robusta*), castor bean (*Ricinus communis*), pampas grass (*Cortaderia* spp.), and Bermuda grass (*Cynodon dactylon*). Common native species found within this community include arrow-weed (*Pluchea sericea*), Fremont cottonwood, and willows. Non-native riparian vegetation is often found in disturbed wetland areas and is extensive along many rivers and streams within coastal southern California.

Two stands of non-native riparian vegetation have been mapped along the South Branch of Chollas Creek in the SESD and Encanto Neighborhoods CPU areas (see Figures 5a-b; SANDAG 2012).

## **5.2.2 Upland Communities**

Upland vegetation communities do not support wetland species, as they typically occur on the drier areas of the mesas, slopes, and canyons in the CPU areas. The following four vegetation communities are mapped within the CPU areas: maritime succulent scrub, Diegan coastal sage scrub, valley and foothill grassland, and non-native grassland. These communities often occur as small stands surrounded by large expanses of development.

### **5.2.2.1 Maritime Succulent Scrub**

Maritime succulent scrub is generally a low (two to three feet high), open (25 to 75 percent cover) vegetation community dominated by drought deciduous, somewhat woody soft-leaved shrubs with a rich mixture of stem and leaf succulents (e.g., cacti). The proportion of cacti in this community is typically highest in inland areas. Ground



cover is more or less devoid of vegetation between shrubs. Growth and flowering are concentrated in the spring. Maritime succulent scrub often occurs on thin, rocky, or sandy soils, often on steep slopes of coastal headlands and bluffs. This type of succulent scrub transitions to southern coastal bluff scrub on more exposed headlands and bluffs and with coastal sage scrub on better developed, moister soils away from the immediate coast (Holland 1986).

One fairly extensive stand of maritime succulent scrub has been mapped along the canyons and slopes that form the southern portion of Emerald Hills Canyon Open Space in the northern portion of the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2012).

### **5.2.2.2 Diegan Coastal Sage Scrub**

Diegan coastal sage scrub is the southern form of coastal sage scrub comprising low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. Diegan coastal sage scrub is typically dominated by facultatively drought deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*). This community is typically found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. Diegan coastal sage scrub is found in coastal areas from Los Angeles County south into Baja California (Holland 1986).

Much of the Diegan coastal sage scrub within the CPU areas has been identified as the coastal form (Holland Code, as modified by Oberbauer et al. [2008] 32510). This community is similar to Diegan coastal sage scrub, but occurs below 1,000 feet AMSL and typically presents a higher dominance of California sagebrush. Other associated dominants include California buckwheat, yellow bush penstemon (*Keckiella antirrhinoides*), laurel sumac, lemonade berry (*Rhus integrifolia*), and black sage.

Diegan coastal sage scrub (including the coastal form) has been mapped along many of the undeveloped canyons and slopes, which are mostly scattered within the northern portion of the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2010, 2012). Diegan coastal sage scrub is also mapped on the slopes adjacent to the South Branch of Chollas Creek in the eastern portion of the SESD CPU Area (see Figure 5a; SANDAG 2010, 2012).

### **5.2.2.3 Valley and Foothill Grassland**

Valley and foothill grassland typically includes grasslands dominated by non-native annual grass or forb species; however, this community may also include grasslands dominated by or supporting a substantial component of native perennial grasses, such as purple needlegrass (*Stipa* [= *Nassella*] *pulchra*). Common non-native grass species

include wild oat (*Avena* spp.), brome grasses (*Bromus* spp.), and barley (*Hordeum* spp.), and typical non-native annual forbs likely include filaree (*Erodium* spp.) and mustards (*Brassica* sp. and *Hirschfeldia* sp.). In valley and foothill grasslands, native perennial herbs, such as sanicle (*Sanicula* spp.), checkerbloom (*Sidalcea* spp.), and western blue-eyed grass (*Sisyrinchium bellum*), and numerous native wildflowers, such as California poppy (*Eschscholzia californica*), gilia (*Gilia* spp.), phacelia (*Phacelia* spp.), clarkia or four-spot (*Clarkia* spp.), or goldfields (*Lasthenia* spp.), are also often present (Oberbauer et al. 2008).

A few isolated stands of valley and foothill grassland have been mapped in the southern portion of the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2010). Due to the urban nature of the surrounding areas and anticipated high level of disturbance within these patches of grassland, the areas mapped as valley and foothill grassland are likely dominated by non-native grass species.

#### **5.2.2.4 Non-native Grassland**

Non-native grassland is characterized by a dense to sparse cover of annual grasses, which may include numerous native wildflowers, particularly in years of high rainfall. Non-native grasslands contain species including, but not limited to, bromes, wild oats, and fescues (*Festuca* spp.). Typically, this community includes at least 50 percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other native and non-native plant species may be intermixed (City of San Diego 2012).

These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. With a few exceptions, the plants of non-native grasslands are dead through the summer-fall dry season. Non-native grassland is typically found on fine-textured, usually clay, soils that range from being moist or waterlogged in the winter to being very dry during the summer and fall. This community is found in valleys and foothills throughout much of California at elevations below 3,000 to 4,000 feet AMSL (Holland 1986).

Non-native grassland, usually forming a mosaic with Diegan coastal sage scrub, has been mapped along many of the undeveloped canyons and slopes, which are mostly scattered within the northern portion of the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2012). One small patch of non-native grassland is also mapped on a slope adjacent to the South Branch of Chollas Creek in the eastern portion of the SESD CPU Area (see Figure 5a; SANDAG 2012).

### **5.2.3 Other Land Cover Types**

Three other land cover types are present within the CPU areas: non-native vegetation, disturbed land, and urban/developed. All result from some sort of development,

encroachment, or other human disturbance and typically do not require any biological mitigation unless they support sensitive flora or fauna.

### **5.2.3.1 Non-native Vegetation**

Non-native vegetation consists of non-native plant species, including ornamental and/or invasive species.

Two moderate-sized stands of non-native vegetation have been mapped along undeveloped slopes within the central and western sections of the Encanto Neighborhoods CPU Area (see Figure 5b; SANDAG 2012).

### **5.2.3.2 Disturbed Land**

Disturbed land is predominantly characterized by non-native plant species that have been introduced by human activities. Different from landscaped areas, this community typically will be sustained by precipitation, urban runoff, or agricultural runoff (Oberbauer et al. 2008).

Patches of disturbed land are scattered throughout both CPU areas, typically occurring along undeveloped slopes surrounding by development (see Figures 5a-b; SANDAG 2010, 2012).

### **5.2.3.3 Urban/Developed**

Areas mapped as urban/developed include locations with residential housing, commercial or industrial land uses, and roads. Urban/developed also includes areas that have been landscaped with non-native or ornamental species and are actively maintained. Urban/developed land is the dominant land cover type within both CPU areas (see Figures 5a-b; SANDAG 2010).

## **5.3 Sensitive Biological Resources**

### **5.3.1 Sensitive Vegetation Communities**

Sensitive vegetation communities are those communities that are of highly limited distribution. These communities may also support concentrations of sensitive plant or wildlife species. Upland communities within the MSCP are divided into four tiers of sensitivity based on rarity and ecological importance (City of San Diego 2012). As shown in Table 3 of the City's Biology Guidelines (2012), upland vegetation communities that are classified as Tier I (rare uplands), Tier II (uncommon uplands), or Tier III (common uplands) are considered sensitive by the City and require mitigation when impacted. Tier IV (other uplands) vegetation communities typically are not considered sensitive and do

not require mitigation when impacted. The sensitive vegetation community MSCP Tiers present in the CPU areas are shown on Figures 6a and 6b, and summarized below.

All wetland vegetation communities, including southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, vernal pool, and non-native riparian, are considered sensitive by the City of San Diego and resource agencies. These communities are regulated by the City, USFWS, and RWQCB, and some are regulated by ACOE and CDFW. Case-by-case analysis would be needed at the project-specific level to determine what agencies (City, USFWS, RWQCB, ACOE, or CDFW) might have regulatory authority on any wetland resources proposed to be impacted.

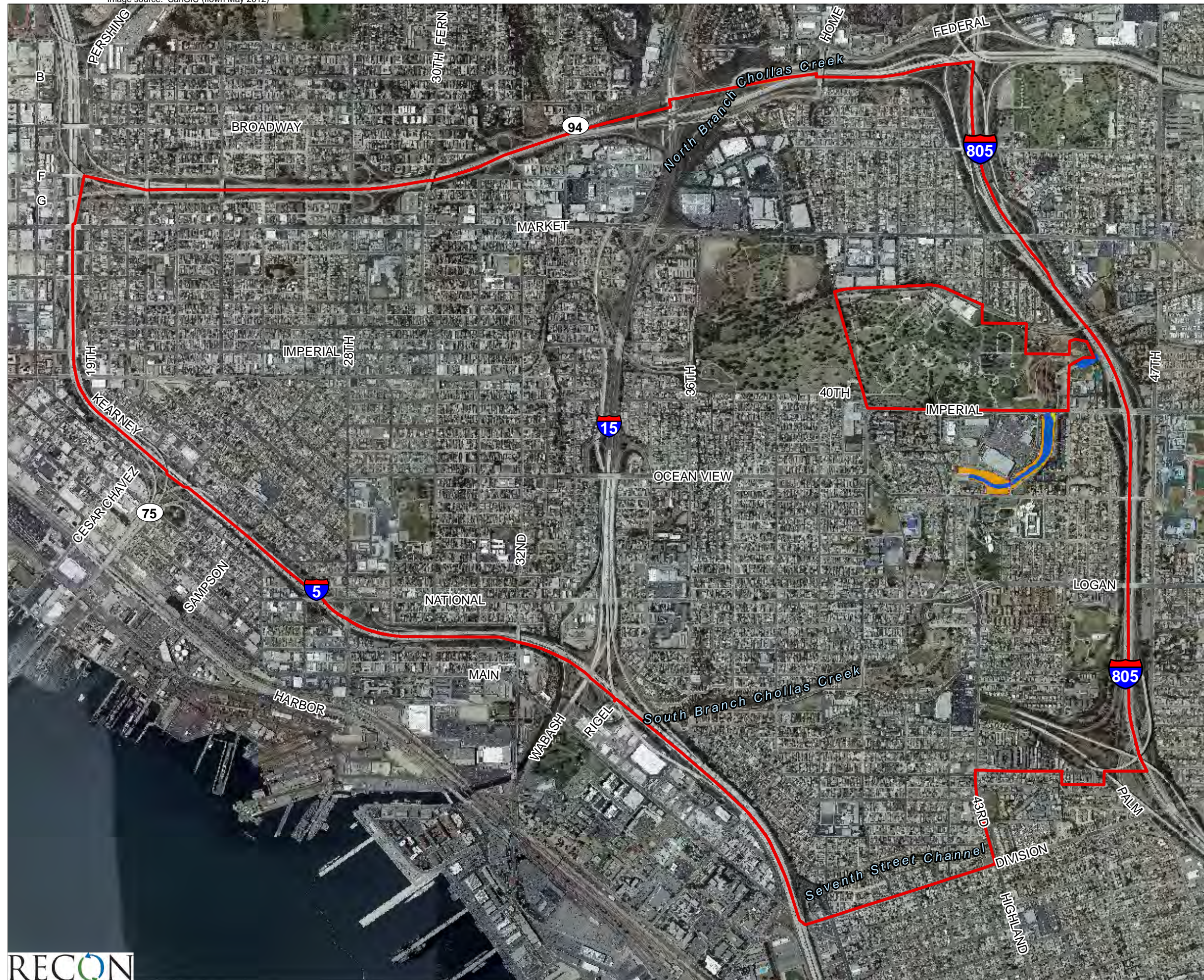
Maritime succulent scrub is an MSCP Tier I (rare uplands) habitat and is mapped along the canyons and slopes that form the southern portion of Emerald Hills Canyon Open Space in the northern portion of the Encanto Neighborhoods CPU Area.

Diegan coastal sage scrub (including coastal form), in pristine or disturbed condition, is considered sensitive by federal and state resource agencies due to the scarcity of this vegetation community and the number of sensitive species associated with it. This vegetation community is also categorized as an MSCP Tier II (uncommon uplands) habitat. Tier II vegetation is mapped along many of the undeveloped canyons and slopes scattered within the northern portion of the Encanto Neighborhoods CPU Area, and on the slopes adjacent to the South Branch of Chollas Creek in the eastern portion of the SESD CPU Area.

Non-native grassland is classified as an MSCP Tier IIIB (common uplands) community. For purposes of this report, valley and foothill grassland is classified as a Tier IIIB habitat, as it is anticipated that the majority of areas mapped as valley and foothill grassland support non-native grassland. Tier IIIB habitat is considered less valuable than native habitat, but still provides habitat for many animal species, particularly foraging habitat for raptors, and may support a variety of rare plant and animal species. Tier IIIB vegetation is mapped as a few isolated stands in the southern portion of the Encanto Neighborhoods CPU Area and alongside Tier II communities on many of the undeveloped canyons and slopes scattered within the northern portion of the Encanto Neighborhoods CPU Area. Tier IIIB vegetation is also mapped in one small patch on a slope adjacent to the South Branch of Chollas Creek in the eastern portion of the SESD CPU Area.

It should be noted that while valley and foothill grassland is a broad vegetation community that is expected to be dominated by non-native grasses, these areas may also include patches of native grassland, which is an MSCP Tier I (rare uplands) community. These areas should be further evaluated at the project-specific level to determine whether there are any areas that qualify as native grasslands.





- Southeastern San Diego CPU Area
- Vegetation Classification**
- Tier II Uplands
  - Tier IIIB Uplands
  - Wetlands

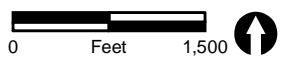


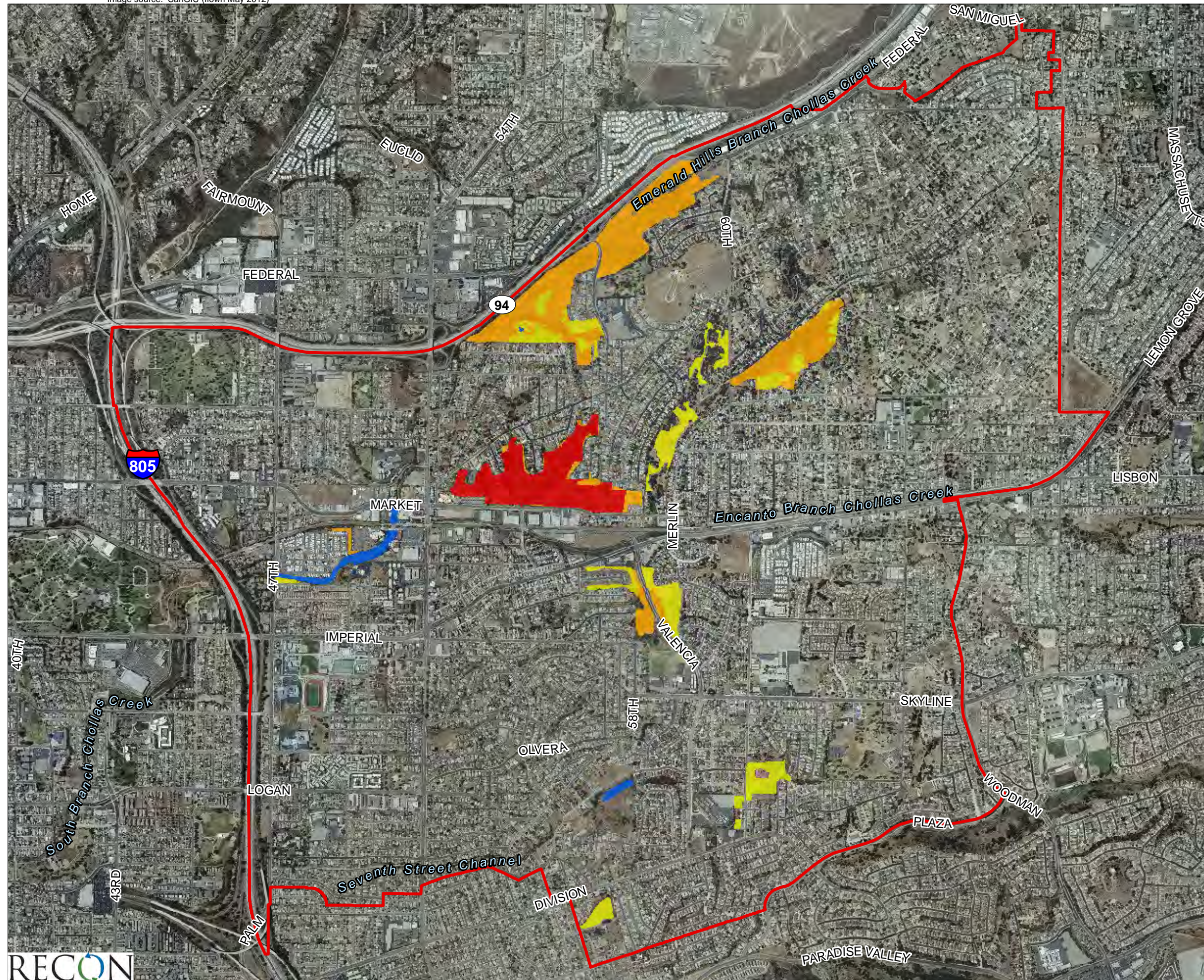
FIGURE 6a

Sensitive Vegetation Communities  
within the Southeastern San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Vegetation Classification**
- Tier I Uplands
  - Tier II Uplands
  - Tier III B Uplands
  - Wetlands

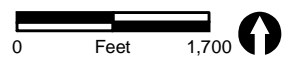


FIGURE 6b

Sensitive Vegetation Communities  
within the Encanto Neighborhoods CPU Area



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## 5.3.2 Sensitive Plant Species

The sensitive plant species below are known from the CPU areas based on information obtained from the literature review (see Sections 4.1 and 4.3). The approximate locations are shown as points on Figures 5a–5b. However, the data points represent a varying level of accuracy and are not intended for project-level analysis. Precise locations of sensitive plant species would be identified through on-site reconnaissance and project-level analysis in conjunction with proposed future development. Table 5 lists the sensitive plant species observed or with potential to occur in the CPU areas.

### 5.3.2.1 Listed and MSCP-Covered Species

Occurrences of two federally listed, state listed, and/or MSCP-covered plant species have been recorded within the CPU areas. Each species is discussed below.

**Otay tarplant (*Deinandra* [=*Hemizonia*] *conjugens*).** Otay tarplant is listed as a California endangered species and a federally threatened species (State of California 2014b). It is considered a narrow endemic species under the MSCP and has a CNPS Rare Plant Ranking of 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously endangered in California; City of San Diego 1997; CNPS 2014). This small, aromatic annual herb in the sunflower family (Asteraceae) produces mostly solitary yellow flowerheads in May and June (Munz 1974, CNPS 2014). It ranges from southwestern San Diego County into Baja California, in open coastal sage scrub and grassland habitats below 1,000 feet AMSL (CNPS 2014). It typically occurs in herbaceous plant communities on slopes and mesas with expansive clay soils, and may occur in non-native grasslands and fallow agricultural fields where clay soils are present (Reiser 2001). It can be distinguished from the common golden tarplant (*D. fasciculata*) by its flowers, which have eight to 10 rays and 13 to 21 disks (Hickman 1993). Otay tarplant is considered to be declining. Residential and commercial development and highway construction have led to this decline (CNPS 2014; Reiser 2001).

One occurrence of this species has been reported in the south-central portion of the Encanto Neighborhoods CPU Area (State of California 2014a). This mapped location currently appears to be undeveloped and is within the MHPA. Undeveloped areas with suitable Diablo clay soils still occur within the Encanto Neighborhoods CPU Area and have potential to support this species.

**Coast barrel cactus (*Ferocactus viridescens*).** Coast barrel cactus is a covered species under the MSCP and has a CNPS Rare Plant Ranking of 2B.1 (City of San Diego 1997; CNPS 2014). This globular succulent in the cactus family (Cactaceae) grows to one foot tall and flowers in May and June. It is the only barrel cactus found in coastal areas, and is found only in coastal San Diego County and Baja California, Mexico. Although found as far north as Oceanside along the coast and Poway inland, the largest populations of coast barrel cactus occur in Otay Mesa, Otay Valley, Point

Loma, and Marine Corps Air Station Miramar (Reiser 2001). This species generally occurs in sandy or rocky areas, or dry hills in coastal sage scrub and grassland habitats below 500 feet AMSL (Hickman 1993; Munz 1974). Coast barrel cactus is threatened by urbanization, off-road vehicles, and collecting (Baldwin et al. 2012).

Multiple occurrences of this species have been reported within and adjacent to the CPU areas. One occurrence is reported from the northern part of Mount Hope Cemetery in the northeastern portion of the SEDS CPU Area; however, this area currently appears to be developed (State of California 2014a). One occurrence is reported south of Imperial Avenue and west of 45<sup>th</sup> Street in the central-eastern portion of the SEDS CPU Area; this area also currently appears to be developed (State of California 2014a).

### 5.3.2.2 Other Sensitive Species

Occurrences of seven additional sensitive plant species that are not federally listed, state listed, or MSCP-covered have been recorded within the CPU areas. Each species is discussed below.

**San Diego County viguiera (*Bahiopsis* [= *Viguiera*] *laciniata*).** San Diego County viguiera has a CNPS Rare Plant Ranking of 4.2 (CNPS 2014). San Diego County viguiera is a shrub in the Composite Family (Asteraceae) that is restricted to San Diego County and northern Baja California and Sonora, Mexico. This shrub may reach five feet in height and flowers between February and June. It is a dominant shrub in coastal sage scrub in inland southern San Diego County, and is known from hundreds of locations. It may also occur in chaparral below 2,500 feet AMSL. San Diego County viguiera is declining, likely due to urban expansion and rural development (CNPS 2014).

Multiple occurrences of this species have been reported within the northern portion of the Encanto Neighborhoods CPU Area. These occurrences date from 1935, 2000, 2008, and 2011, and are mapped within the northern and southern extents of Emerald Hills Canyon Open Space (SDNHM 2014). Each of these mapped locations currently supports undeveloped land.

**San Diego marsh-elder (*Iva hayesiana*).** San Diego marsh-elder has a CNPS Rare Plant Ranking of 2B.2 (2014). This plant is a subshrub with multiple stems and relatively fleshy leaves that grows to three feet tall and produces nodding clusters of inconspicuous flowers between April and September (Munz 1974). This species is distributed in San Diego County and northern Baja California below 1,700 feet AMSL. Its habitat is identified as marshes, swamps, and playas (CNPS 2014), alkaline sinks and flats (Munz 1974; Hickman 1993), and creeks of intermittent streambeds (Reiser 2001). In San Diego County, it has been reported from the Tijuana Estuary to near Lake Hodges, with populations becoming smaller and more localized in the northern part of its range. San Diego marsh-elder is found on sandy alluvial embankments with cobbles on Riverwash, San Miguel-Exchequer, or Huerhuero loam soils (Reiser 2001).

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO NEIGHBORHOODS CPU AREAS**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>BRYOPHYTES</b>				
<b>SPHAEROCARPACEAE</b>				
<i>Geothallus tuberosus</i> Campbell's liverwort	—/—	1B.1	—	MODERATE. This species has been reported within two miles of the CPU areas (State of California 2014a), and the planning areas support potentially suitable habitat.  This species is an ephemeral liverwort; habitat includes mesic coastal sage scrub, vernal pools; elevation below 2,000 feet. Recently reported from Camp Pendleton.
<i>Sphaerocarpos drewei</i> bottle liverwort	—/—	1B.1	—	MODERATE. This species has been reported within two miles of the CPU areas (State of California 2014a), and the planning areas support potentially suitable habitat.  This species is an ephemeral liverwort; habitat includes openings in chaparral and coastal sage scrub; elevation 300–2,000 feet.
<b>LYCOPODS</b>				
<b>SELAGINELLACEAE</b>	<b>SPIKE-MOSS FAMILY</b>			
<i>Selaginella cinerascens</i> ashy spike-moss	—/—	4.1	—	HIGH. The CPU areas support potentially suitable habitat.  This species is a perennial rhizomatous herb; habitat includes chaparral, coastal scrub; elevation 65–2,100 feet.
<b>FERNS</b>				
<b>OPHIOGLOSSACEAE</b>	<b>ADDER'S TONGUE FAMILY</b>			
<i>Ophioglossum californicum</i> California adder's-tongue	—/—	4.2	—	MODERATE. The Encanto Neighborhoods CPU Area supports potentially suitable vernal pool habitat.  This species is a perennial herb; habitat includes chaparral, vernal pools, valley and foothill grasslands; blooms December–May; elevation 200–1,000 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>ANGIOSPERMS: DICOTS</b>				
<b>APIACEAE</b>	<b>CARROT FAMILY</b>			
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	CE/FE	1B.1	MSCP <sup>1</sup>	MODERATE. This species has been reported within two miles of the CPU areas (State of California 2014a), and the Encanto Neighborhoods CPU Area supports potentially suitable vernal pool habitat.  This species is an annual/perennial herb; habitat includes vernal pools, mesic areas of coastal sage scrub and grasslands, blooms April–June; elevation less than 2,000 feet.
<b>ASTERACEAE</b>	<b>SUNFLOWER FAMILY</b>			
<i>Ambrosia chenopodiifolia</i> San Diego bur-sage	–/–	2B.1	–	LOW. The CPU areas support potentially suitable habitat. However, this species' distribution is limited, as only approximately 10 occurrences are known in San Diego. Additional populations have been recorded in Baja California, Mexico.  This species is a shrub; habitat includes coastal sage scrub, cobbly loam soils; blooms April–June; elevation 150–500 feet.
<i>Ambrosia monogyra</i> [= <i>Hymenoclea monogyra</i> ] singlewhorl burrobrush	–/–	2B.2	–	MODERATE. The planning areas support potentially suitable riparian habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is a perennial shrub; habitat includes sandy, chaparral, riparian, Sonoran desert scrub; blooms August–November; elevation 30–1,650 feet.
<i>Ambrosia pumila</i> San Diego ambrosia	–/FE	1B.1	NE, MSCP	LOW. The planning areas support marginally suitable habitat, and this species has been reported within two miles of the CPU areas. However, each of these populations is likely or possibly extirpated (State of California 2014a).  This species is a perennial herb; habitat includes chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–September; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.



**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Artemisia palmeri</i> San Diego sagewort	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is a perennial deciduous shrub; habitat includes coastal sage scrub, chaparral, riparian, mesic, sandy areas; blooms May–September; elevation less than 3,000 feet.
<i>Bahiopsis</i> [= <i>Viguiera</i> ] <i>laciniata</i> San Diego County viguiera	—/—	4.2	—	<b>PRESENT. Multiple occurrences of this species have been reported within the Encanto Neighborhoods CPU Area: one in Emerald Hills from 1935, one in the “Encanto area” from 2000, one in Emerald Hills Canyon Open Space from 2008, and one south of SR-94 from 2011 (SDNHM 2014).</b>  This species is a shrub; habitat includes chaparral, coastal sage scrub; blooms February–June; elevation less than 2,500 feet.
<i>Centromadia</i> [= <i>Hemizonia</i> ] <i>parryi</i> ssp. <i>australis</i> southern tarplant	—/—	1B.1	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes margins of marshes and swamps, valley and foothill grasslands, vernal pools; blooms May–November; elevation less than 1,600 feet.
<i>Deinandra</i> [= <i>Hemizonia</i> ] <i>conjugens</i> Otay tarplant	CE/FT	1B.1	NE, MSCP	<b>PRESENT. One occurrence of this species has been reported in the south-central portion of the Encanto Neighborhoods CPU Area, in MHPA; however, this is in an area currently mapped as disturbed land (State of California 2014a).</b> Two additional occurrences have been reported within two miles of the planning areas (State of California 2014a).  This species is an annual herb; habitat includes coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Ericameria palmeri</i> var. <i>palmeri</i> [= <i>E. palmeri</i> ssp. <i>palmeri</i> ] Palmer's goldenbush	—/—	1B.1	MSCP	HIGH. The planning areas support potentially suitable habitat. This species has been reported just outside and north of the northeastern portion of the Southeastern San Diego CPU Area, and one additional occurrence has been reported within two miles of the CPU areas (State of California 2014a).  This species is a perennial evergreen shrub; habitat includes chaparral, coastal sage scrub, typically in mesic areas; blooms July–November; elevation less than 2,000 feet. Known from six occurrences in California.
<i>Holocarpha virgata</i> ssp. <i>elongata</i> graceful tarplant	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes coastal sage scrub, cismontane woodland, valley and foothill grasslands, chaparral; blooms July–November; elevation 200–3,600 feet.
<i>Isocoma menziesii</i> var. <i>menziesii</i> [=var. <i>decumbens</i> ] Decumbent goldenbush	—/—	1B.2	—	HIGH. The planning areas support potentially suitable habitat. This species has been reported within two miles of the CPU areas (State of California 2014a).  This species is a shrub; habitat includes chaparral, coastal sage scrub, sandy soils, often in disturbed areas; blooms April–November.; elevation less than 500 feet.
<i>Iva hayesiana</i> San Diego marsh-elder	—/—	2B.2	—	<b>PRESENT. This species has been observed within riparian scrub vegetation along the Emerald Hills Branch of Chollas Creek, northwest of the intersection of Euclid Avenue and Market Street, in the Encanto Neighborhoods CPU Area (REC Consultants, Inc. 2012).</b>  This species is a perennial herb; habitat includes marshes and swamps, playas, riparian areas; blooms April–September; elevation below 1,700 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	—/—	1B.1	—	MODERATE. The planning areas support potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes coastal salt marsh, vernal pools, playas; blooms February–June; elevation less than 4,000 feet.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> small-flowered microseris	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes clay lenses on perennial grasslands, vernal pools, openings in coastal sage scrub; blooms March–May; elevation 50–3,500 feet.
<i>Senecio aphanactis</i> chaparral ragwort [=rayless ragwort and groundsel]	—/—	2B.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes chaparral, cismontane woodland, coastal sage scrub; blooms January–April; elevation less than 2,700 feet.
<b>BORAGINACEAE</b>	<b>BORAGE FAMILY</b>			
<i>Harpagonella palmeri</i> Palmer's grapplinghook	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an inconspicuous annual herb; habitat includes chaparral, coastal sage scrub, valley and foothill grasslands; clay soils; blooms March–May; elevation less than 3,200 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>BRASSICACEAE</b>	<b>MUSTARD FAMILY</b>			
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	—/—	4.3	—	<b>PRESENT.</b> Two occurrences of this species have been reported within the Encanto Neighborhoods CPU Area: one from 2008 in Emerald Hills Canyon Open Space and one from 1935 along Federal Boulevard in Emerald Hills (SDNHM 2014; State of California 2014a).  This species is an annual herb; habitat includes coastal sage scrub, chaparral; blooms January–July; elevation less than 2,900 feet.
<b>CACTACEAE</b>	<b>CACTUS FAMILY</b>			
<i>Bergerocactus emoryi</i> Golden-spined cereus	—/—	2.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is a succulent; habitat includes closed-cone coniferous forest, chaparral, coastal sage scrub, sandy; blooms May–June; elevation less than 1,300 feet.
<i>Cylindropuntia</i> [= <i>Opuntia</i> ] <i>californica</i> var. <i>californica</i> snake cholla	—/—	1B.1	NE, MSCP	MODERATE. The planning areas support potentially suitable habitat. This species has been reported within two miles of the CPU areas (State of California 2014a).  This species is a succulent shrub; habitat includes chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Ferocactus viridescens</i> San Diego barrel cactus	—/—	2B.1	MSCP	<b>HIGH. Multiple occurrences of this species have been reported within and adjacent to the CPU areas. One occurrence is reported from the northern part of Mount Hope Cemetery in the northeastern portion of the Southeastern San Diego CPU Area; however, this area currently appears to be developed (State of California 2014a). One occurrence is reported south of Imperial Avenue and west of 45<sup>th</sup> Street in the central-eastern portion of the Southeastern San Diego CPU Area; however, this area also currently appears to be developed (State of California 2014a). One record from 2000 occurs within 0.5 mile of the southern edge of the Encanto Neighborhoods CPU Area; this area currently appears to be undeveloped (State of California 2014a). Multiple additional occurrences have been reported within two miles of the CPU areas (State of California 2014a).</b>  This species is a succulent; habitat includes chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; blooms May–June; elevation less than 1,500 feet.
<b>CHENOPODIACEAE</b>	<b>GOOSEFOOT FAMILY</b>			
<i>Aphanisma blitoides</i> aphanisma	—/—	1B.2	NE, MSCP	LOW. The planning areas support marginally suitable habitat. This species has been reported within two miles north of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes coastal bluff scrub, coastal sage scrub; sandy soils; blooms March–June; elevation less than 1,000 feet.
<i>Atriplex pacifica</i> south coast saltscale	—/—	1B.2	—	LOW. The planning areas support marginally suitable habitat. This species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes coastal bluff scrub, coastal dunes, coastal sage scrub, playas; blooms March–October; elevation less than 500 feet.



**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>CONVOLVULACEAE</b>	<b>BELLFLOWER FAMILY</b>			
<i>Convolvulus simulans</i> small-flowered morning glory	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat and clay soils; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes openings in chaparral, coastal sage scrub, valley and foothill grassland, clay substrate; blooms March–July; elevation less than 2,300 feet.
<i>Dichondra occidentalis</i> western dichondra	—/—	4.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is a perennial herb (rhizomatous); habitat includes chaparral, cismontane woodland, coastal sage scrub, valley and foothill grasslands; blooms March–July; elevation less than 200–1,650 feet.
<b>CRASSULACEAE</b>	<b>STONECROP FAMILY</b>			
<i>Dudleya variegata</i> Variegated dudleya	—/—	1B.2	NE, MSCP	MODERATE. The planning areas support potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is a perennial herb; habitat includes openings in chaparral, coastal sage scrub, grasslands, vernal pools; blooms May–June; elevation less than 2,000 feet.
<b>EUPHORBIACEAE</b>	<b>SPURGE FAMILY</b>			
<i>Euphorbia misera</i> Cliff spurge	—/—	2B.2	—	MODERATE. The planning areas support potentially suitable habitat. This species has been reported within two miles of the CPU areas (State of California 2014a).  This species is a shrub; habitat includes coastal sage scrub, maritime succulent scrub, coastal bluff scrub; blooms December–August; elevation less than 2,000 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>FAGACEAE</b>	<b>OAK FAMILY</b>			
<i>Quercus dumosa</i> Nuttall's scrub oak	—/—	1B.1	—	MODERATE. The planning areas provide potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an evergreen shrub; habitat includes closed-cone coniferous forest, coastal chaparral, coastal sage scrub, sandy and clay loam soils; blooms February–March; elevation less than 1,300 feet.
<b>LAMIACEAE</b>	<b>MINT FAMILY</b>			
<i>Acanthomintha ilicifolia</i> San Diego thornmint	CE/FT	1B.1	NE, MSCP	MODERATE. The CPU areas support potentially suitable habitat. This species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.
<i>Monardella viminea</i> [= <i>Monardella linoides</i> ssp. <i>viminea</i> ] willow monardella	CE/FE	1B.1	MSCP	LOW. The planning areas support potentially suitable habitat. This species has been reported within two miles of the CPU areas. However, this report is from a historic collection, and the population possibly is extirpated (State of California 2014a).  This species is a perennial herb; habitat includes closed-cone coniferous forest, chaparral, coastal sage scrub, riparian scrub, riparian woodlands, sandy seasonal dry washes; blooms June–August; elevation 160–740 feet.
<i>Monardella stoneana</i> Jennifer's monardella	—/—	1B.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is a perennial herb; habitat usually includes rocky intermittent streambeds, closed-cone coniferous forest, chaparral, coastal sage scrub, riparian scrub; blooms June–September; elevation 30–2,600 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Pogogyne abramsii</i> San Diego mesa mint	CE/FE	1B.1	NE, MSCP	LOW. The planning areas provide potentially suitable habitat. This species has been reported within two miles of the CPU areas. However, this report is from a historic collection, and the population likely is extirpated (State of California 2014a).  This species is an annual herb; habitat includes vernal pools; blooms April–July; elevation 300–700 feet.
<b>MONTIACEAE</b>	<b>MONTIA FAMILY</b>			
<i>Calandrinia breweri</i> Brewer's calandrinia	–/–	4.2	–	LOW. The planning areas support potentially suitable habitat; however, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes chaparral and coastal sage scrub, sandy or loamy soils, disturbed sites and burns; blooms March–June; elevation less than 4,000 feet.
<b>ONAGRACEAE</b>	<b>EVENING-PRIMROSE FAMILY</b>			
<i>Camissoniopsis</i> [= <i>Camissonia</i> ] <i>lewisii</i> Lewis's evening primrose	–/–	3	–	<b>PRESENT. One occurrence of this species was reported from 2008 in Emerald Hills Canyon Open Space (SDNHM 2014).</b>  This species is an annual herb; habitat includes coastal bluff scrub, cismontane woodland, coastal dunes, coastal sage scrub, valley and foothill grasslands, sandy or clay; blooms March–July; elevation less than 1,000 feet.
<b>POLEMONIACEAE</b>	<b>PHLOX FAMILY</b>			
<i>Navarretia fossalis</i> Spreading navarretia	–/FT	1B.1	MSCP <sup>1</sup>	MODERATE. The planning areas support potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>POLYGONACEAE</b>	<b>BUCKWHEAT FAMILY</b>			
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	—/—	1B.2	—	MODERATE. The planning areas provide potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).  This species is an annual herb; habitat includes clay soils, openings in chaparral, coastal sage scrub, near vernal pools and montane meadows, April–July; elevation 100–5,000 feet.
<b>RANUNCULACEAE</b>	<b>BUTTERCUP FAMILY</b>			
<i>Myosurus minimus</i> ssp. <i>apus</i> Little mousetail	—/—	3.1	—	LOW. The Encanto Neighborhoods CPU Area supports potentially suitable habitat. However, no occurrences of this species have been reported in the vicinity of the planning areas.  This species is an annual herb; habitat includes vernal pools, perennial grasslands; blooms March–June; elevation 70–2,100 feet.
<b>RHAMNACEAE</b>	<b>BUCKTHORN FAMILY</b>			
<i>Adolphia californica</i> California adolphia	—/—	2B.1	—	<b>PRESENT. Multiple occurrences of this species have been reported within the CPU areas. One occurrence, most recently reported from 2001, is mapped in coastal sage scrub, southwest of Johnson Elementary School in the northwestern portion of the Encanto Neighborhoods CPU Area (State of California 2014a; SDNHM 2014). One occurrence, most recently reported from 2008, is in coastal sage scrub just north of Market Street in the eastern-central portion of the Encanto Neighborhoods CPU Area (State of California 2014a; SDNHM 2014). One record from 1971 has an approximate location just southeast of the intersection of I-15 and SR-94 in the Southeastern San Diego CPU Area (State of California 2014a; SDNHM 2014).</b>  This species is a deciduous shrub; habitat includes Diegan coastal sage scrub and chaparral; clay soils; blooms December–May; elevation 100–1,000 feet.



**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	—/—	2B.2	MSCP	LOW. This species has been reported within two miles of the CPU areas (State of California 2014a). However, potentially suitable chaparral habitat has not been mapped in either CPU area.  This species is a perennial evergreen shrub; habitat includes chaparral; blooms December–April; elevation less than 1,300 feet.
<b>SOLANACEAE</b>	<b>NIGHTSHADE FAMILY</b>			
<i>Lycium californicum</i> California box-thorn	—/—	4.2	—	<b>PRESENT. One occurrence of this species was reported in 2000 in the northern portion of the Encanto Neighborhoods CPU Area (SDNHM 2014).</b>  This species is a perennial shrub; habitat includes coastal bluff scrub, coastal sage scrub; blooms March–August; elevation less than 500 feet.
<b>ANGIOSPERMS: MONOCOTS</b>				
<b>JUNCACEAE</b>	<b>RUSH FAMILY</b>			
<i>Juncus acutus</i> ssp. <i>leopoldii</i> southwestern spiny rush	—/—	4.2	—	<b>PRESENT. This species was observed within riparian scrub vegetation along the Emerald Hills Branch of Chollas Creek, northwest of the intersection of Euclid Avenue and Market Street, in the Encanto Neighborhoods CPU Area (REC Consultants, Inc. 2012).</b>  This species is a perennial herb (rhizomatous); habitat includes coastal dunes, meadows and seeps, coastal salt marsh, riparian; blooms May–June; elevation less than 3,000 feet.
<b>ORCHIDACEAE</b>	<b>ORCHID FAMILY</b>			
<i>Piperia cooperi</i> chaparral rein-orchid	—/—	4.2	—	LOW. The planning areas support marginally suitable habitat, and no occurrences have been reported in the vicinity of the CPU areas.  This species is a perennial herb; habitat includes chaparral, cismontane woodland, perennial grassland; blooms March to June; elevation less than 5,200 feet.

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	State/ Federal Status	CNPS Rare Plant Ranking	City of San Diego	Potential to Occur/Known Occurrences within or adjacent to the CPU Areas* Species Description, Habitat, Blooming Period, and Elevation Range
<b>POACEAE</b>	<b>GRASS FAMILY</b>			
<i>Hordeum intercedens</i> bobtail barley [=vernal barley]	—/—	3.2	—	LOW. The planning areas support potentially suitable habitat; however, no occurrences have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes coastal dunes, coastal sage scrub, valley and foothill grasslands, vernal pools; blooms March–June; elevation less than 3,300 feet.
<i>Orcuttia californica</i> California Orcutt grass	CE/FE	1B.1	NE, MSCP <sup>1</sup>	LOW. The Encanto Neighborhoods CPU Area provides potentially suitable vernal pool habitat. However, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is an annual herb; habitat includes vernal pools; blooms April–August; elevation 50–2,200 feet.
<b>THEMIDACEAE</b>	<b>BRODIAEA FAMILY</b>			
<i>Bloomeria</i> [=Muilla] <i>clevelandii</i> San Diego goldenstar	—/—	1B.1	MSCP	MODERATE. The CPU areas support potentially suitable habitat. This species has been reported within two miles of the planning areas (State of California 2014a).  This species is a perennial herb (bulbiferous); habitat includes chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, clay soils; blooms May; elevation 170–1,500 feet.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	—/—	1B.1	MSCP	LOW. The planning areas provide potentially suitable habitat. However, no occurrences of this species have been reported in the vicinity of the CPU areas.  This species is a perennial herb (bulbiferous); habitat includes closed cone coniferous forest, chaparral, meadows and seeps, valley and foothill grassland, vernal pools, mesic, clay soil; blooms May–July; elevation less than 5,300 feet.

<sup>1</sup>The City of San Diego relinquished take authority for the seven vernal pool species under the Brewster decision, including San Diego button celery, spreading navarretia, and California Orcutt grass.

\* Bold text indicates recorded occurrences of species from *within* the planning area(s).

**TABLE 5**  
**SENSITIVE PLANT SPECIES KNOWN OR WITH THE POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

**FEDERAL CANDIDATES AND LISTED PLANTS**

FE = Federally listed endangered  
 FT = Federally listed threatened

**STATE LISTED PLANTS**

CE = State listed endangered

**CITY OF SAN DIEGO**

NE = Narrow endemic  
 MSCP = Multiple Species Conservation Program covered species

**CALIFORNIA NATIVE PLANT SOCIETY RARE PLANT RANKINGS**

- 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
- 2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
- 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information are needed.
- 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.
- .1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- .2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
- .3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)



San Diego marsh-elder may be affected by modifications and degradation of drainages along the coast in San Diego County (Reiser 2001).

San Diego marsh-elder has been observed within riparian scrub vegetation along the Emerald Hills Branch of Chollas Creek, northwest of the intersection of Euclid Avenue and Market Street, in the Encanto Neighborhoods CPU Area (REC Consultants, Inc. 2012).

**Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)**. Robinson's pepper-grass has a CNPS Rare Plant Ranking of 4.3 (2014). This annual in the mustard family (Brassicaceae) has divided or lobed leaves along its stem, grows from four to eight inches tall, and flowers between January and April (Munz 1974). Robinson's pepper-grass occurs from Los Angeles County south to Baja California and on Santa Cruz Island. It grows in openings in coastal sage scrub and chaparral vegetation below 1,600 feet AMSL. In San Diego County, it is typically found on dry, exposed sites, rather than beneath shrubs or near creeks (Reiser 2001). Robinson's pepper-grass is shorter than two more widespread varieties of this species that grow in its range, *L. v. var. virginicum* and *L. v. var. pubescens*. These varieties grow in disturbed areas, such as old fields and roadsides, are taller than eight inches when mature, and have stem leaves that are dissected to entire in shape. To identify this species using a taxonomic key, however, it is necessary to examine it in fruit (Hickman 1993). Robinson's pepper-grass is threatened by development and possibly by the spread of non-native plant species (CNPS 2014).

Two occurrences of this species have been reported within the Encanto Neighborhoods CPU Area: one from 2008 in Emerald Hills Canyon Open Space, and one from 1935 along Federal Boulevard in Emerald Hills (SDNHM 2014; State of California 2014a).

**Lewis's evening primrose (*Camissoniopsis* [= *Camissonia*] *lewisii*)**. Lewis's evening primrose has a CNPS Rare Plant Ranking of 3 (CNPS 2014). This sprawling annual herb in the evening primrose family (Onagraceae) flowers in April and May. Its range extends from Point Dume in Los Angeles County south to Baja California, Mexico, although it is thought to be extirpated from Orange County (Skinner and Pavlik 1994). Lewis's evening primrose occurs in open grasslands and sandy places below 1,000 feet AMSL (Munz 1974). In San Diego County, most populations occur on very sandy substrates near the beach, typically on beach bluffs. Reports of inland populations are questionable (Reiser 2001). Individual plants can resemble relatively common evening primrose species (i.e., *C. bistorta* or *C. micrantha*). Floral and fruit characteristics are needed to distinguish this species from other small evening primroses growing in sandy areas near the beach. Lewis's evening primrose is severely declining in San Diego County, largely due to heavy recreational use of the beaches and impacts associated with beach maintenance activities (Reiser 2001).

One occurrence of this species was reported from 2008 in Emerald Hills Canyon Open Space, in the northern portion of the Encanto Neighborhoods CPU Area (SDNHM 2014).

**California adolphia (*Adolphia californica*).** California adolphia has a CNPS Rare Plant Ranking of 2B.1 (CNPS 2014). This small shrub in the buckthorn family (Rhamnaceae) flowers from December to April and loses its leaves in late summer and fall. However, its spiny stems are identifiable at close range year-round. This species generally occurs in Diegan coastal sage scrub, near the edge of chaparral, particularly in dry canyons or washes. It is associated with San Miguel and Friant soils (Reiser 2001). Its range is limited to San Diego County and northern Baja California, Mexico, at elevations below 1,000 feet AMSL. In San Diego County, it is found from the Carlsbad area south into the Proctor Valley and the Otay area (Beauchamp 1986). California adolphia is substantially declining due to urban growth and the resulting habitat loss (Reiser 2001).

Multiple occurrences of this species have been reported within the CPU areas. One occurrence, which appears to have multiple records in the databases and was most recently reported from 2001, is mapped in coastal sage scrub, southwest of Johnson Elementary School in the northwestern portion of the Encanto Neighborhoods CPU Area (State of California 2014a; SDNHM 2014). One occurrence, which also appears to have multiple records and was most recently reported from 2008, is in coastal sage scrub just north of Market Street in the eastern-central portion of the Encanto Neighborhoods CPU Area (State of California 2014a; SDNHM 2014). Each of the records from the Encanto Neighborhoods CPU Area appears to be located within the MHPA. One record from 1971 has an approximate location just southeast of the intersection of I-15 and SR-94 in the SEDS CPU Area; however, this area currently appears to support agriculture (State of California 2014a; SDNHM 2014).

**California box-thorn (*Lycium californicum*).** California box-thorn has a CNPS Rare Plant Ranking of 4.2 (CNPS 2014). This shrub in the nightshade family (Solanaceae) has stiff, spiny branches, small fleshy leaves, and white, purple-tinged flowers that bloom from March to July (Munz 1974). California box-thorn is distributed coastally, on the Channel Islands and from Los Angeles County south to Baja California, Mexico (Munz 1974; Hickman 1993). The general habitat for this species is coastal bluff scrub and coastal sage scrub below 500 feet AMSL; in San Diego County, it occupies a band in upper coastal salt marshes and on sandstone steppes (Reiser 2001). California box-thorn differs from all other plants in its genus, because it has leaves that are more or less round in cross section and produces only two seeds per fruit (Hickman 1993). California box-thorn is severely declining in San Diego County due to urban expansion along the immediate coast (Reiser 2001). One occurrence of this species was reported in 2000 in the northern portion of the Encanto Neighborhoods CPU Area (SDNHM 2014).

**Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*).** Southwestern spiny rush has a CNPS Rare Plant Ranking of 4.2 (2014). This perennial herb in the rush family (Juncaceae) has basal leaves and stout stems that form large tufts up to five feet tall, blooming in May and June (Munz 1974). Southwestern spiny rush grows in coastal salt marshes and dunes from San Luis Obispo County south to Baja California, Mexico, and in meadows and alkaline seeps in Imperial County and Arizona (CNPS 2014; Reiser 2001). It may also grow along riparian drainages, in palm oases, or “[w]herever water can pond along substantial seasonal drainages” (Reiser 2001). Southwestern spiny rush is threatened by loss of wetland habitats, urbanization, and flood control (Reiser 2001; CNPS 2014).

This species was observed within riparian scrub vegetation along the Emerald Hills Branch of Chollas Creek, northwest of the intersection of Euclid Avenue and Market Street, in the Encanto Neighborhoods CPU Area (REC Consultants, Inc. 2012).

### 5.3.3 Sensitive Wildlife Species

The sensitive wildlife species below are known from the CPU areas based on information obtained from the literature review (see Sections 4.1 and 4.4). The approximate locations are shown as points on Figures 5a–5b. However, the data points represent a varying level of accuracy and are not intended for project-level analysis. Precise locations of sensitive wildlife species would be identified through on-site reconnaissance in conjunction with future projects. Table 6 lists the sensitive wildlife species known or with potential to occur in the CPU areas.

#### 5.3.3.1 Sensitive Invertebrates

##### Listed Species

Two federally endangered invertebrate species have been reported within or near the CPU areas and are discussed below.

**Quino checkerspot butterfly (*Euphydryas editha quino*).** Quino checkerspot butterfly is federally listed as endangered (State of California 2014d). The Quino checkerspot butterfly’s historic range includes the coastal plain and inland valleys of southern California from the Santa Monica Mountains in California south to northern Baja California, Mexico. Currently, the species is known from southern San Diego County and western Riverside County in California, and northern Baja California, Mexico (USFWS 2003). Quino checkerspot butterflies occur at several locations on Otay Mesa and Jacumba in San Diego County, and near Murrieta and Temecula and eastward to Hemet and Anza in Riverside County (USFWS 1997a, 2003).

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO NEIGHBORHOODS CPU AREAS**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
<b>INVERTEBRATES</b>		
(Nomenclature from Eriksen and Belk 1999)		
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE, MSCP <sup>1</sup> , *	HIGH. This species has been reported within two miles of the CPU areas (State of California 2014a). Potentially suitable vernal pool habitat has been mapped within the northern portion of the Encanto Neighborhoods CPU Area. Habitat includes vernal pools.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	FE, MSCP <sup>1</sup> , *	LOW. Potentially suitable vernal pool habitat has been mapped within the northern portion of the Encanto Neighborhoods CPU Area. However, this species has not been reported in the vicinity of the CPU areas. Habitat includes vernal pools, generally with a minimum depth of 30 centimeters.
(Nomenclature from Lotts and Naberhaus 2014)		
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	FE	<b>NOT EXPECTED. Multiple occurrences of this species have been reported within both CPU areas. However, the most recent is from 1969, and due to the high level of development and disturbance within the CPU areas, this species is not anticipated to occur. Historical recorded occurrences, from between 1911 and 1946, are mapped in the north-central portion of the Southeastern San Diego CPU Area (County of San Diego 2010), and additional occurrences from 1948 are mapped in the southern portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010; USFWS 2014a). One occurrence of this species was reported in 1969 in the central-eastern portion of the Encanto CPU Area; this location currently is mapped as developed land (County of San Diego 2010; USFWS 2014a).</b>  Habitat includes open, dry areas in foothills, mesas, lake margins. Larval host plant <i>Plantago erecta</i> . Adult emergence mid-January through April.



**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
Monarch butterfly <i>Danaus plexippus</i>	*	HIGH. This species has a high potential to occur and a moderate potential to roost within the CPU areas. This species is frequently observed in developed areas of San Diego, and the planning areas support potentially suitable roost trees. Multiple communal roost sites have been reported within two miles of the CPU areas (State of California 2014a).  Habitat includes dense tree cover, with species such as <i>Eucalyptus</i> , for overwintering. Host plant milkweeds. Adults may breed all year in southeastern California.
<b>AMPHIBIANS</b> (Nomenclature from Crother et al. 2008)		
Western spadefoot <i>Spea hammondi</i>	CSC, *	LOW. The CPU areas support potentially suitable habitat. However, no occurrences of this species have been reported in the vicinity of the CPU areas.  Habitat includes vernal pools, floodplains, and alkali flats within areas of open vegetation.
<b>REPTILES</b> (Nomenclature from Crother et al. 2008)		
Belding's orange-throated whiptail <i>Aspidoscelis hyperythra beldingi</i>	CSC, MSCP	HIGH. The CPU areas support potentially suitable habitat. Multiple occurrences of this species have been reported within two miles of the CPU areas (State of California 2014a).  Habitat includes chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
Coronado skink <i>Eumeces skiltonianus interparietalis</i>	CSC	HIGH. The CPU areas provide potentially suitable habitat.  Habitat includes grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
Coast Blainville's horned lizard <i>Phrynosoma coronatum</i> (San Diego/ <i>blainvillii</i> population)	CSC, MSCP	<p>LOW. The CPU areas support potentially suitable habitat but likely lacks sufficient populations of this species' primary food source, harvester ant. Harvester ant is often locally extirpated in urbanized areas due to the introduction of Argentine ants. Coast Blainville's horned lizard has been reported within two miles of the CPU areas. However, this is a historic record with a non-specific locations, and the populations possibly are extirpated (State of California 2014a).</p> <p>Habitat includes chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.</p>
San Diego ring-necked snake <i>Diadophis punctatus similis</i>	*	<p>LOW. The CPU areas support marginally suitable habitat. This species was reported in 1930 within 0.5 mile north of the Encanto Neighborhoods CPU Area (County of San Diego 2010).</p> <p>Habitat includes rocky areas in wet locales, such as swamps, damp forests, or riparian woodlands.</p>
Two-striped gartersnake <i>Thamnophis hammondi</i>	CSC, *	<p>MODERATE. The CPU areas provide potentially suitable habitat, and this species has been reported within two miles of the CPU areas (State of California 2014a).</p> <p>Habitat includes permanent freshwater streams with rocky bottoms. Mesic areas.</p>

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
<b>BIRDS</b> (Nomenclature from American Ornithologists' Union 2013 and Unitt 2004)		
Great egret (rookery site) <i>Ardea alba egretta</i>	*	HIGH to occur/forage, NOT EXPECTED to nest. The CPU areas support potentially suitable foraging habitat.  Habitat includes lagoons, bays, estuaries. Ponds and lakes in the coastal lowland. Winter visitor, uncommon in summer.
Black-crowned night heron (rookery site) <i>Nycticorax nycticorax hoactli</i>	*	HIGH to occur/forage, LOW to nest. The CPU areas support potentially suitable foraging and nesting habitat.  Habitat includes lagoons, estuaries, bayshores, ponds, and lakes. Often roost in trees. Year-round visitor. Localized breeding.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	MSCP, *	<b>PRESENT. Multiple occurrences of this species have been reported within the CPU areas. One reported occurrence from 1997 is in the central-northern portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010). A second reported occurrence from 1997 is mapped in the eastern portion of Southeastern San Diego CPU Area, within what currently appears to be ornamental vegetation and trees within development (County of San Diego 2010).</b>  Habitat includes mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Year-round resident.
<b>STRIGIDAE</b> <b>TYPICAL OWLS</b>		
Western burrowing owl (burrow sites) <i>Athene cunicularia hypugaea</i>	CSC, MSCP, *	NOT EXPECTED. The CPU areas lack large expanses of open grassland. Two occurrences of this species have been reported within two miles of the CPU areas. However, these are historic reports with non-specific location information (State of California 2014a).  Habitat includes grassland, agricultural land, coastal dunes. Require rodent burrows. Resident of the coastal lowland and agricultural areas of Imperial County.

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	FE, SE, MSCP, *	<b>PRESENT. This species has been reported in the northeastern portion of the Southeastern San Diego CPU Area, along the North Branch of Chollas Creek (State of California 2014a).</b> Additional occurrences have been reported within two miles of the CPU areas (State of California 2014a).  Habitat includes willow riparian woodlands. Migrant and summer resident.
California horned lark <i>Eremophila alpestris actia</i>	*	HIGH. The CPU areas support potentially suitable habitat.  Habitat includes sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub. Common breeding resident, abundant migrant and winter visitor.
Coastal cactus wren <i>Campylorhynchus brunneicapillus sandiegensis</i>	CSC, MSCP, *	<b>PRESENT. Multiple occurrences of this species have been reported from 1997, 1998, and 2001 in the central-northwestern portion of the Encanto Neighborhoods CPU Area; some reports are mapped within what currently appears to be coastal sage scrub within an urban canyon (County of San Diego 2010).</b> In June 2014, juveniles of this species were also observed building practice nests within the eastern portion of the Encanto Neighborhoods CPU Area (Audubon Society and Cornell Lab of Ornithology 2014). In addition, multiple occurrences have been reported within 0.5 mile of the southern edge of the Encanto CPU Area (State of California 2014a; County of San Diego 2010).  Habitat includes maritime succulent scrub, coastal sage scrub and desert scrub with <i>Opuntia</i> thickets. Rare localized resident.



**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
<b>SYLVIIDAE</b> <b>GNATCATCHERS</b>		
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT, CSC, MSCP, *	<b>PRESENT. Multiple occurrences of this species have been reported between 1990 and 2014 within the CPU areas. Reports from 2003 and 2004 occur in the central-northern portion of the Encanto Neighborhoods CPU Area, adjacent to SR-94 (USFWS 2014a). One report is located in the central-northwestern portion of the Encanto Neighborhoods CPU Area in coastal sage scrub of an urban canyon (State of California 2014a). Two reports from 1997 and 1998 occur in the east-central section of the Encanto Neighborhoods CPU Area (County of San Diego 2010). One report is from the south-central portion of the Encanto Neighborhoods CPU Area, adjacent to Valencia Parkway (State of California 2014a). Several pairs of this species were also reported within the Encanto Neighborhoods CPU Area in June 2014 (Audubon Society and Cornell Lab of Ornithology 2014). Additional reports from 2001 and 2010 occur just outside the northeastern portion of the Southeastern San Diego CPU Area, north of SR-94 (USFWS 2014a; County of San Diego 2010).</b>  Habitat includes coastal sage scrub, maritime succulent scrub. Resident.
<b>PARULIDAE</b> <b>WOOD WARBLERS</b>		
Yellow-breasted chat (nesting) <i>Icteria virens auricollis</i>	CSC, *	HIGH. The Encanto Neighborhoods CPU Area supports potentially suitable habitat.  Breeding restricted to dense riparian woodland. Localized summer resident.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	MSCP, *	HIGH. The planning areas support potentially suitable habitat.  Habitat includes coastal sage scrub, chaparral, grassland; favors steep and rocky areas. Localized resident.

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
<b>MAMMALS</b> (Nomenclature from Baker et al. 2003)		
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	CSC, WBWG:H	MODERATE. <b>This species was reported from 1946 in Mount Hope Cemetery within the Southeastern San Diego CPU Area (State of California 2014a).</b> An additional occurrence of this species has been reported within two miles of the CPU areas (State of California 2014a).  Sightings in San Diego County very rare. Migratory.
Western red bat <i>Lasiurus blossevillii</i>	CSC, WBWG:H	MODERATE. <b>This species was reported in 1900 from the central-eastern portion of the Encanto Neighborhoods CPU Area; however, this location currently is mapped as developed land (County of San Diego 2010).</b> Additional occurrences were recorded in 1933 and 1938 within 0.5 mile of the central-eastern portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010).  Day roosts in riparian habitat, orchards, sometimes urban areas adjacent to streams or open fields; occasionally roost in caves.
Western yellow bat <i>Lasiurus xanthinus</i>	CSC, WBWG:H	MODERATE. This species has been reported within two miles of the CPU areas (State of California 2014a).  Habitat includes valley foothill riparian, desert riparian, desert wash, and palm oasis; roosts in trees with a preference for palms; forages over water and among trees.
Western bonneted [=mastiff] bat <i>Eumops perotis californicus</i>	CSC, WBWG:H	HIGH. <b>This species was reported within the central portion of the Southeastern San Diego CPU Area in 1999 and within two miles of the CPU areas in 2003 (County of San Diego 2010; State of California 2014a).</b> The CPU areas support potentially suitable habitat.  Habitat includes woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows. Audible echolocation signal.

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

Species	Status	Potential to Occur/Known Occurrences within or adjacent to the CPU areas* Habitat Description and Comments
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	CSC	HIGH. Multiple occurrences of this species have been reported within two miles of the CPU areas (State of California 2014a).  Normally roost in crevice in rocks, slopes, cliffs. Lower elevations in San Diego and Imperial counties. Colonial. Leave roosts well after dark.
Big free-tailed bat <i>Nyctinomops macrotis</i>	CSC	LOW. This species has been reported within two miles of the CPU areas (State of California 2014a).  Habitat includes rugged, rocky terrain. Roost in crevices, buildings, caves, tree holes. Very rare in San Diego County. Colonial. Migratory.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	CSC, *	MODERATE. The CPU areas support potentially suitable habitat. However, much of the habitat is fragmented and isolated within development.  Occurs in San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	CSC, *	MODERATE. The CPU areas support potentially suitable habitat. However, much of the habitat is fragmented and isolated within development.  Habitat includes coastal sage scrub and chaparral.

<sup>1</sup>The City of San Diego relinquished federal coverage for the seven vernal pool species, including San Diego and Riverside fairy shrimp. The City of San Diego still retains State coverage for these seven vernal pool species.

\* Bold text indicates recorded occurrences of species from *within* the CPU area(s).

**FEDERAL AND STATE LISTED STATUS CODES**

FE = Listed as endangered by the federal government

FT = Listed as threatened by the federal government

SE = Listed as endangered by the State of California

**TABLE 6**  
**SENSITIVE WILDLIFE SPECIES KNOWN OR WITH POTENTIAL TO OCCUR IN THE SOUTHEASTERN SAN DIEGO AND ENCANTO**  
**NEIGHBORHOODS CPU AREAS**  
**(Continued)**

**OTHER STATUS CODES**

CSC = California Department of Fish and Wildlife species of special concern

MSCP = Multiple Species Conservation Program covered species

WBWG:H = Western Bat Working Group: High Priority species, imperiled or at high risk of imperilment based on available information on distribution, status, ecology, and known threats

\* = Taxa listed with an asterisk fall into one or more of the following categories:

- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)



The distribution of Quino checkerspot butterflies is primarily defined by the distribution of its principal larval host plant, dot-seed plantain (*Plantago erecta*). Female Quino checkerspot butterflies have also been observed depositing eggs on desert plantain (*Plantago patagonica*), white snapdragon (*Antirrhinum coulterianum*), thread-leaved bird's beak (*Cordylanthus rigidus*), purple owl's clover (*Castilleja exserta*), and Chinese houses (*Collinsia* spp.) (USFWS 2014b; Faulkner and Klein 2010). Threats to this species include habitat loss, fragmentation, and habitat type conversion.

In April 2002, the USFWS designated critical habitat for the Quino checkerspot butterfly in portions of San Diego and Riverside Counties (USFWS 2002). In June 2009, the final designated critical habitat was revised (USFWS 2009). No designated critical habitat for the Quino checkerspot butterfly occurs within the CPU areas. In addition, the CPU areas are outside the USFWS Recommended Quino Survey Area (USFWS 2014b).

Multiple occurrences of this species have been reported within both CPU areas; however all are historical recorded occurrences, observed between 1911 and 1969. The recorded occurrences between 1911 and 1946 are mapped in the north-central portion of the SESD CPU Area (County of San Diego 2010), and additional occurrences from 1948 are mapped in the southern portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010, USFWS 2014a). One occurrence of this species was reported in 1969 in the central-eastern portion of the Encanto Neighborhoods CPU Area; however, this location is currently mapped as developed land and no longer supports suitable habitat for the species (County of San Diego 2010, USFWS 2014a). Given that the most recent observation is 45 years old and the CPU areas support a high level of development and disturbance, this species is no longer anticipated to occur within this urbanized region of San Diego.

**San Diego fairy shrimp (*Branchinecta sandiegonensis*).** The San Diego fairy shrimp is federally listed as endangered. This species is also an MSCP-covered species; however, the City of San Diego relinquished federal coverage for the seven vernal pool species, including San Diego fairy shrimp, in 2010 (see Section 3.3.1.1). The City of San Diego still retains state coverage for these seven vernal pool species. This fairy shrimp occurs in limited populations in Santa Barbara and Orange counties and in San Diego County from San Marcos and Ramona south to Otay Mesa and into northwestern Baja California, Mexico, at Valle de Las Palmas (USFWS 1997b). The majority of San Diego fairy shrimp populations are located in San Diego County. San Diego fairy shrimp are restricted to vernal pools and prefer cool water temperatures. This species can also be found in ditches and road ruts that are located in degraded vernal pool habitat. Fairy shrimp remain dormant in cysts until pools fill during the rainy season. Nauplii emerge from cysts and develop into adults sometime between mid-December and early May (Eriksen and Belk 1999). Development takes between 10 and 20 days and is dependent on water temperature. Primary threats to this species are habitat destruction and

fragmentation, alterations of wetland hydrology, off-road vehicle activity, and grazing (USFWS 1997b).

This species has been reported within two miles of the CPU areas (State of California 2014a). Potentially suitable habitat occurs in the northern portion of the Encanto Neighborhoods CPU Area, where vernal pools have been mapped.

### **5.3.3.2 Sensitive Birds**

#### **Listed and MSCP-Covered Species**

Occurrences of four federally listed, state listed, and/or MSCP-covered avian species have been reported within the CPU areas. Each species is discussed below.

**Cooper's hawk (*Accipiter cooperi*).** The Cooper's hawk is an MSCP-covered species (City of San Diego 1997). Cooper's hawk nesting sites are considered sensitive by CDFW (CDFW 1991). The Cooper's hawk ranges year-round throughout most of the United States; its wintering range extends south to Central America and its breeding range extends north to southern Canada (Rosenfeld and Bielefeldt 1993). It is considered an uncommon resident during the breeding season in southern California, with numbers increasing in winter (Garrett and Dunn 1981). This hawk mainly breeds in oak and willow riparian woodlands, but will also use eucalyptus trees. Breeding occurs from March to July. This hawk forages primarily on medium-sized birds, but is also known to eat small mammals such as chipmunks and other rodents (Rosenfeld and Bielefeldt 1993). Urbanization and loss of habitat have caused the decline of this species; however, this species has acclimated well to the urban environment, and is now at least as numerous in urban eucalyptus trees as in natural habitats (Unitt 2004).

Multiple occurrences of this species have been reported within the CPU areas. One reported occurrence from 1997 is mapped in the central-northern portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010). A second reported occurrence from 1997 is mapped in the eastern portion of SESD CPU Area, within what currently appears to be ornamental vegetation and trees within development (County of San Diego 2010). Suitable habitat is found throughout both CPU areas, as this species is well-acclimated to the urban environment. Tall native and non-native trees within landscaped portions of urban/developed land or within areas mapped as non-native vegetation may provide suitable nesting habitat.

**Least Bell's vireo (*Vireo bellii pusillus*).** The least Bell's vireo is federally and state listed as endangered and is an MSCP-covered species (City of San Diego 1997; State of California 2014d). Its historical breeding range once extended from northwestern Baja California, Mexico, to interior northern California, as far north as Red Bluff in Tehama County, California (Franzreb 1989). Its current distribution is now restricted to eight southern counties, the majority occurring in San Diego County (USFWS 1998). Least Bell's vireo winters in Mexico, and breeds in southern California and northern Baja

California, Mexico. The species is exclusively found in riparian habitats, including cottonwood-willow woodlands and forests, oak woodlands, and mule fat scrub, and requires dense cover for nesting (USFWS 1998). Least Bell's vireo arrives at the breeding grounds in mid-March and remains until September or October. Their diet consists primarily of insects and spiders and some fruit (Brown 1993). Populations of least Bell's vireo have declined drastically due to extensive loss of riparian habitat to agricultural and urban development, including channelization and mining of streams, and nest parasitism by brown-headed cowbirds (*Molothrus ater*). However, the population has increased as a result of extensive brown-headed cowbird trapping programs.

This species has been reported within the northeastern portion of the SESD CPU Area, along the North Branch of Chollas Creek (State of California 2014a). The riparian vegetation within each of the CPU areas may provide suitable habitat for this species.

**Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*).** The coastal cactus wren is a CDFW species of special concern and an MSCP-covered species (City of San Diego 1997; State of California 2014d). This species ranges from southern Orange County through San Diego County into extreme northwestern Baja California (Proudfoot et al. 2000). Year-round residents, coastal cactus wrens inhabit coastal lowlands containing thickets of cholla and prickly pear cactus in coastal sage and maritime succulent scrub (Unitt 2004). Coastal cactus wrens build their nests in the cactus, and males often build secondary nests, which may be used for roosting by adults and fledglings and nesting for subsequent broods (Proudfoot et al. 2000). Nesting typically occurs from March through July, and fledglings remain in the nest until September. Their diet consists mainly of grasshoppers, beetles, ants, wasps, butterflies, moths, spiders, and occasionally vegetation, reptiles, and amphibians (Proudfoot et al. 2000). The primary cause for the decline of this species is degradation and loss of breeding habitat due to urbanization.

Multiple occurrences of this species have been reported from 1997, 1998, and 2001 in the central-northwestern portion of the Encanto Neighborhoods CPU Area; some reports are mapped within what is currently mapped as maritime succulent scrub within an urban canyon (County of San Diego 2010), and some of these reported locations occur within the MHPA. Areas mapped as maritime succulent scrub provide the most likely suitable habitat for this species due to the high likelihood of the presence of cactus thickets.

**Coastal California gnatcatcher (*Poliioptila californica californica*).** Coastal California gnatcatcher is federally listed as threatened, a CDFW species of special concern, and an MSCP-covered species (City of San Diego 1997; State of California 2014d). The coastal California gnatcatcher is a non-migratory, resident species found on the coastal slopes of southern California, ranging from Ventura County southward through Los Angeles, Orange, Riverside, and San Diego counties into Baja California, Mexico (Atwood and Bontrager 2001). Coastal California gnatcatchers typically occur in or near



sage scrub habitat, although chaparral, grassland, and riparian woodland habitats are used where they occur adjacent to sage scrub. Breeding occurs from February through August, and nests are constructed most often in California sagebrush. The coastal California gnatcatcher's diet consists mainly of sessile small arthropods, such as leafhoppers, spiders, beetles, and true bugs (Atwood and Bontrager 2001). The primary cause of decline in the coastal California gnatcatcher is habitat loss and degradation.

Multiple occurrences of this species have been reported between 1990 and 2010 within the CPU areas. Reports from 2003 and 2004 occur in the central-northern portion of the Encanto Neighborhoods CPU Area, adjacent to SR-94 (USFWS 2014a). These locations correspond with areas currently mapped as coastal sage scrub within MHPA. One report is located in the central-northwestern portion of the Encanto Neighborhoods CPU Area in coastal sage scrub of an urban canyon (State of California 2014a). Two reports from 1997 and 1998 occur in the east-central portion of the Encanto Neighborhoods CPU Area (County of San Diego 2010). One report is from the south-central portion of the Encanto Neighborhoods CPU Area, adjacent to Valencia Parkway (State of California 2014a). Although potentially suitable habitat (Diegan coastal sage scrub) occurs in the SESD CPU Area, this habitat is relatively small in size and isolated within development. Therefore, this habitat has a lower potential to support coastal California gnatcatcher than the larger stands of Diegan coastal sage scrub and maritime succulent scrub in the Encanto Neighborhoods CPU Area, where coastal California gnatcatcher is expected to nest.

### 5.3.3.3 Sensitive Mammals

Occurrences of three sensitive bat species have been reported within the CPU areas. None of these species is federally listed, state listed, or covered by the MSCP. Each species is discussed below.

**Mexican long-tongued bat (*Choeronycteris mexicana*).** The Mexican long-tongued bat is a CDFW species of special concern and a Western Bat Working Group (WBWG) High Priority species. This species' distribution extends from the southern United States, through Mexico and Central America (Harvey et al. 2011). It has been reported as recently as 1999 in a number of urban locations in San Diego County, including Mount Helix and the San Diego Zoo (State of California 2014a). In other states, it has been reported in desert and montane riparian habitats, succulent scrub, and pinyon-juniper woodlands, and it roosts in caves, mines, and buildings. This bat is a colonial breeder from May to August. Their diet consists mainly of nectar and pollen, occasionally of fruit, and rarely of insects (California Interagency Wildlife Task Group 2000). Possible threats to this species include recreational caving, mining activities or mine closures, development, and loss of riparian habitat (WBWG 2005a).

This species was reported in 1946 at Mount Hope Cemetery within the SESD CPU Area (State of California 2014a).

**Western red bat (*Lasiurus blossevillii*).** The western red bat is a CDFW species of special concern and a WBWG High Priority species. In California, this species occurs from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts (California Interagency Wildlife Task Group 2014). In San Diego County, it has been reported at Cabrillo Monument, Rancho Jamul Ecological Reserve, the Santa Ysabel Open Space Preserve, and a number of other locations as recently as 2003 (State of California 2014a). It primarily roosts in multi-family colonies in woodlands and forests, and forages for moths, crickets, beetles, and cicadas over adjacent shrublands, grasslands, or agricultural areas. Preferred roost sites are protected from above but open below. Threats to this species include loss of riparian habitat, primarily due to agricultural conversion and construction of water reservoirs. Use of pesticides in orchards may also decrease insect populations, and in turn prey abundance (WBWG 2005b).

This species was reported in 1900 from the central-eastern portion of the Encanto Neighborhoods CPU Area; however, this location currently is mapped as developed land (County of San Diego 2010).

**Western bonneted (mastiff) bat (*Eumops perotis californicus*).** The western bonneted bat is a CDFW species of special concern and is a WBWG High Priority species (State of California 2011). This species ranges from central California into central Mexico (Williams 1986). In California, it has been recorded from Butte County and the Bay Area south along much of the coast and western slope of the Sierra Nevada, throughout the southern California coastal basins, and in the western portion of the desert (Williams 1986). The western mastiff bat is nonmigratory and rare in San Diego County. It occurs in rugged, rocky areas where there are suitable rock crevices or buildings with sufficient shelter for day roosts. It also frequently roosts in buildings (Williams 1986). The western mastiff bat feeds on flying insects, such as wasps and bees. Potential threats to this species include habitat loss to agriculture and urbanization, as well as loss of prey due to insecticide use (Williams 1986).

This species has been reported within the central portion of the SESD CPU Area in 1999 and within two miles of the CPU areas in 2003 (County of San Diego 2010; State of California 2014a).

## 5.4 Jurisdictional Waters/Wetlands

There are approximately 25.9 acres of the SESD CPU Area and 38.2 acres of the Encanto Neighborhoods CPU Area that have been mapped as a wetland or water resource. Some of these wetlands and waters have been identified by using the vegetation mapping and include southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, vernal pool, and non-native riparian (see Figures 5a–5b). Additional wetlands and waters have been mapped by the National Wetlands Inventory (USFWS 2012). In order to illustrate the full extent of potentially jurisdictional wetlands

and waters using available data for the CPU areas, the wetlands vegetation mapping and National Wetlands Inventory mapping have been combined and are presented on Figures 7a and 7b.

Agencies with jurisdictional authority over wetlands and other jurisdictional water resources include USFWS, ACOE, CDFW, RWQCB, and the City of San Diego. An assessment of wetland (e.g., protocol wetland delineation) and water resources would need to be made at the project-specific level for all subsequent development proposals in order to identify any potential wetlands and other jurisdictional waters. If warranted, a formal wetland delineation would need to be conducted to identify the precise boundaries of these resources to determine the extent of the existing waters/wetlands and to accurately determine if any impacts would occur from any proposed future project.

### **5.4.1 U.S. Army Corps of Engineers**

As stated in the federal regulations for the CWA, wetlands are defined as:

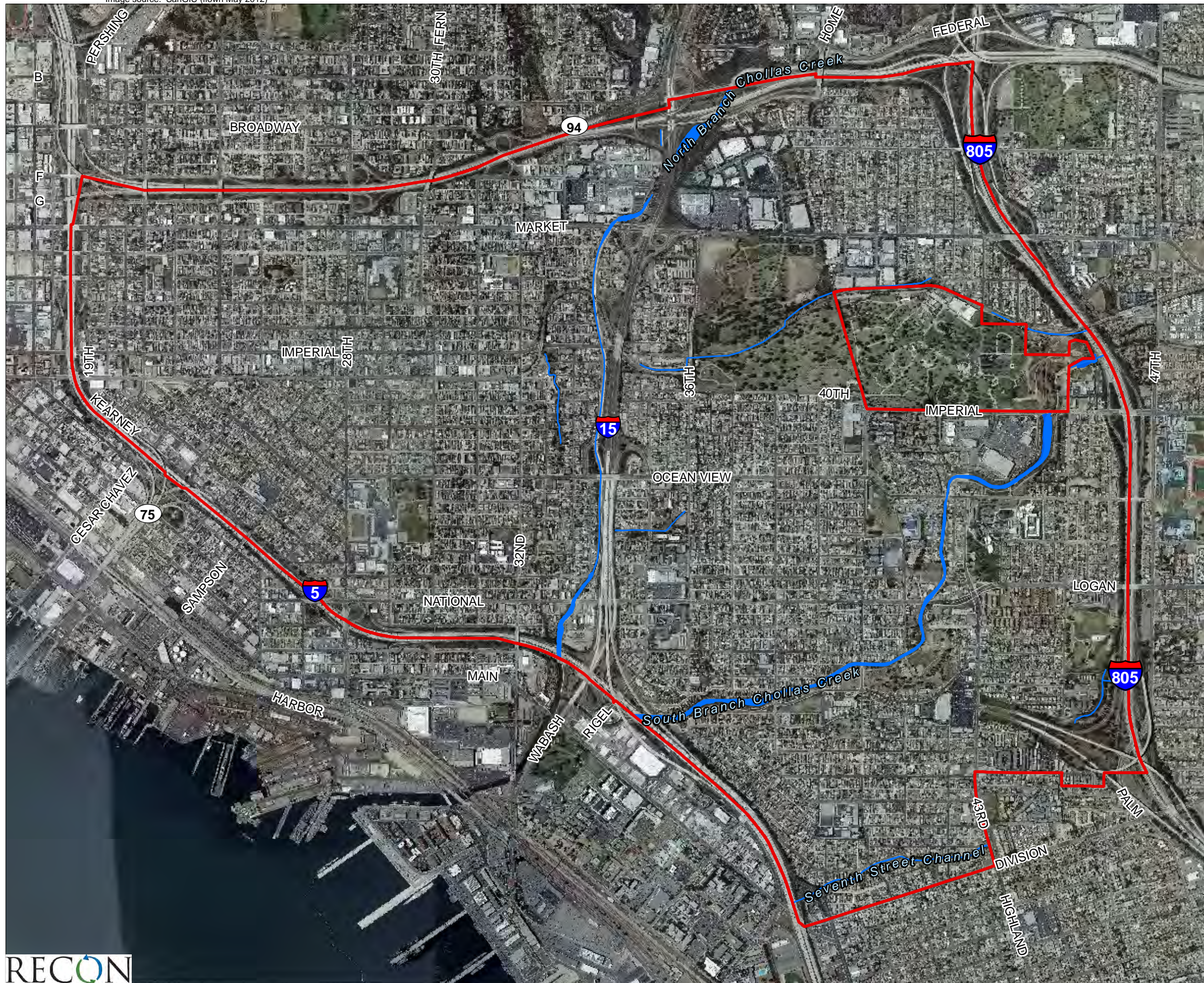
those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions (Environmental Protection Agency, 40 CFR 230.3 and CE, 33 CFR 328.3).

Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to ACOE, indicators for all three parameters must be present to qualify an area as a wetland.

In accordance with Section 404 of the CWA, ACOE regulates the discharge of dredged or fill material into waters of the U.S. The term “waters of the United States” is defined as:

- All waters currently used, or used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation, or destruction of which could affect foreign commerce including any such waters: (1) which could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are, or could be taken and sold in interstate or foreign





- Southeastern San Diego CPU Area
- Potentially Jurisdictional Wetlands and Waters

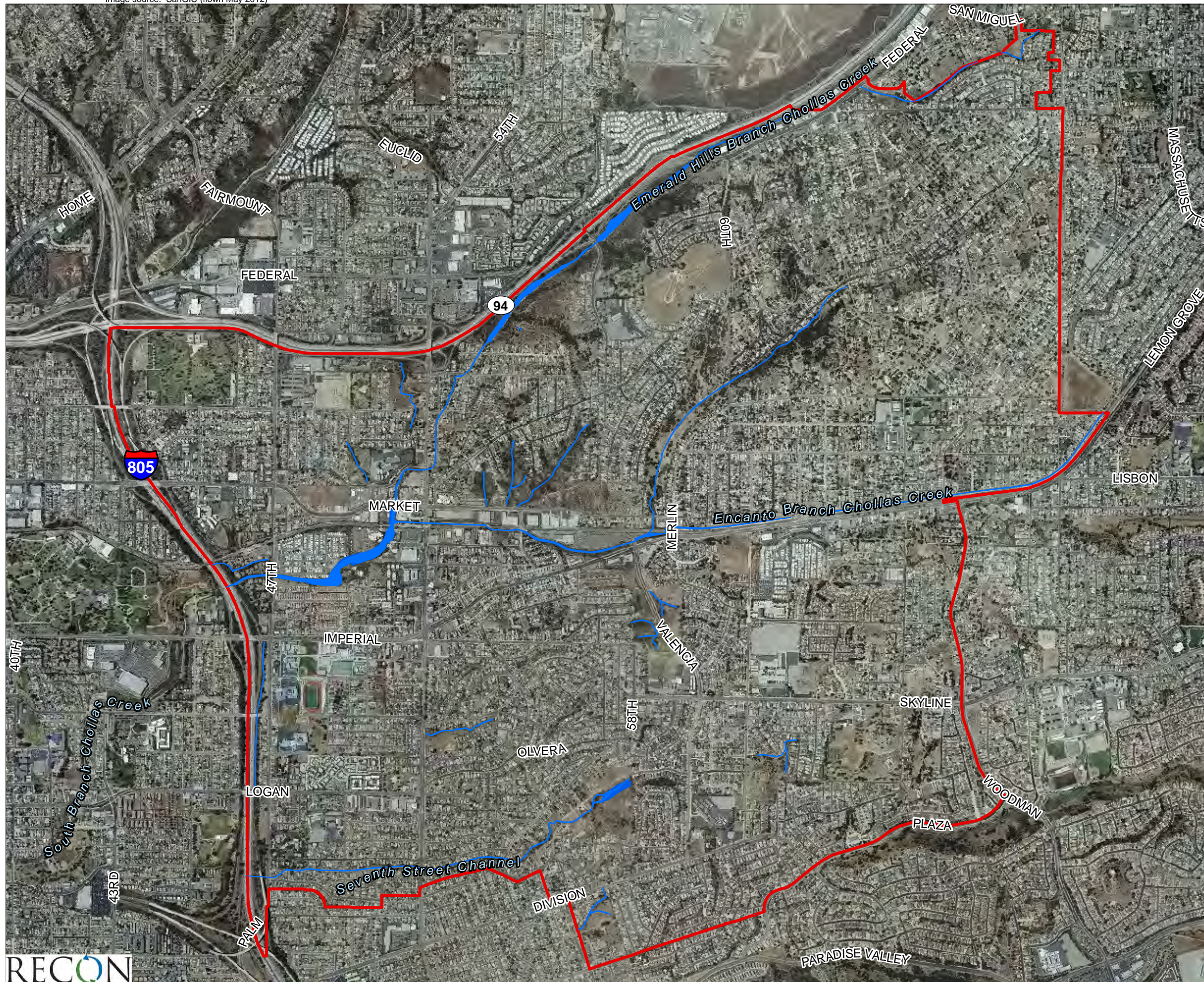
FIGURE 7a

Potentially Jurisdictional Wetlands and Waters  
within the Southeastern San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Potentially Jurisdictional Wetlands and Waters

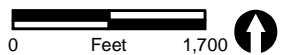


FIGURE 7b

Potentially Jurisdictional Wetlands and Waters within the Encanto Neighborhoods CPU Area



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- commerce; or (3) which are used or could be used for industries in interstate commerce.;
- All other impoundments of waters otherwise as defined as waters of the United States under the definition;
- Tributaries of waters identified above;
- The territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above [33 CFR Part 328.3(a)].

ACOE also requires the delineation of non-wetland jurisdictional waters. These waters must have strong hydrology indicators such as the presence of seasonal flows and an ordinary high watermark. An ordinary high watermark is defined as:

. . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR Part 328.3).

Areas delineated as non-wetland jurisdictional waters may lack wetland vegetation or hydric soil characteristics. Hydric soil indicators may be missing because topographic position precludes ponding and subsequent development of hydric soils. Absence of wetland vegetation can result from frequent scouring due to rapid water flow. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the ordinary high watermark of the particular drainage or depression.

## **5.4.2 U.S. Fish and Wildlife Service**

Under Sections 7 and 10 of the FESA, USFWS has regulatory authority over federally listed endangered or threatened plant and animal species. Specifically, Section 7 requires agencies to ensure that their activities are not likely to jeopardize the continued existence of listed species or impact designated critical habitats through consultation with the USFWS. Under Section 7, the USFWS issues a Biological Opinion that serves as the ITP associated with a 404 permit authorized by the ACOE. Under Section 10(a)1(A), the USFWS requires the preparation of an HCP which accompanies the ITP to ensure that the authorized take is adequately mitigated and minimized. Therefore, impacts to any of the seven federally listed vernal pool species must be approved by USFWS, in addition to any other applicable Wildlife Agencies. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If

adopted, the City would have “take” authority for the vernal pool species occurring within the HCP areas.

### **5.4.3 California Department of Fish and Wildlife**

Under Sections 1600–1607 of the Fish and Wildlife Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, and non-native riparian) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider.

### **5.4.4 RWQCB Jurisdiction**

RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes all waters of the state and all waters of the United States as mandated by both the federal CWA and the California Porter-Cologne Water Quality Control Act. State waters are all waters that meet one of three criteria (hydrology, hydric soils, or wetland vegetation), and generally include, but are not limited to, all waters under the jurisdiction of ACOE and CDFW.

### **5.4.5 City of San Diego**

According to the City of San Diego’s Biology Guidelines (City of San Diego 2012), wetlands are areas that are characterized by any of the following conditions: (1) all areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation; (2) areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation, or catastrophic or recurring natural events preclude the establishment of wetland vegetation (e.g., areas of scour within streambeds, coastal mudflats, and salt pannes that are unvegetated due to tidal duration); (3) ephemeral or intermittent drainages if wetland dependent vegetation is either present in the drainage or lacking due to past human activities; and (4) areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

## **5.5 Wildlife Movement Corridors**

Habitat linkages and wildlife corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Habitat linkages and wildlife corridors are important because they provide access to mates, food, and water; allow



the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations. Wildlife movement corridors are considered sensitive by the City of San Diego and resource and conservation agencies.

Within both CPU areas, the main water courses and canyons provide the best opportunities for wildlife movement. However, no regional wildlife corridors have been identified within the CPU areas per the MSCP Subarea Plan. Habitat within these canyons and waterways is only anticipated to provide stepping stones for flighted species and provide for limited, local movement of terrestrial species, as discussed below.

In the SESD CPU Area, the presence of habitat or any vegetative cover is patchy along the North Branch of Chollas Creek, with an unvegetated, concrete-lined section of this creek extending for over 0.5 mile within the CPU area. The South Branch of Chollas Creek tends to provide more vegetative cover than the North Branch; however, the density and cover of vegetation is inconsistent and likely not sufficient to provide a corridor for movement of large mammal species. Urban-acclimated species such as coyote (*Canis latrans*), northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*) are likely to utilize the creeks for dispersal, whether vegetated or unvegetated. Due to the South Branch's connectivity to the Emerald Hills Branch of Chollas Creek in the Encanto Neighborhoods CPU Area, these creeks likely provide for dispersal of these urban-acclimated species from larger tracts of habitat, such as that found in Emerald Hills Canyon Open Space in the northern portion of the Encanto Neighborhoods CPU Area. However, as this open space and the lower reach of Chollas Creek are both ultimately constrained by development, only localized movement of terrestrial species would be expected.

Similarly, the Encanto Branch of Chollas Creek, which occurs in the Encanto Neighborhoods CPU Area, provides patchy habitat mixed with substantial unvegetated, concrete-lined sections; contains multiple culverted sections; and is ultimately constrained by development. The Seventh Street Channel, which crosses both CPU areas, is similar to the Encanto Branch of Chollas Creek but contains culverted sections of greater length (over one-third-mile), likely further limiting wildlife movement along this channel. Therefore, only urban-acclimated species would be expected to utilize the Encanto Branch of Chollas Creek and the Seventh Street Channel for dispersal. Due to the patchiness of vegetative cover and isolation of the creeks and urban canyons within development, these water courses are not anticipated to function as significant wildlife movement corridors for terrestrial animals other than the urban-acclimated species.

## **5.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area**

The primary goal of the MSCP is to conserve viable populations of sensitive species and regional biodiversity while allowing for reasonable economic growth. The MHPA is the area from which the permanent MSCP preserve is assembled via the application of the requirements of the MSCP Subarea Plan.

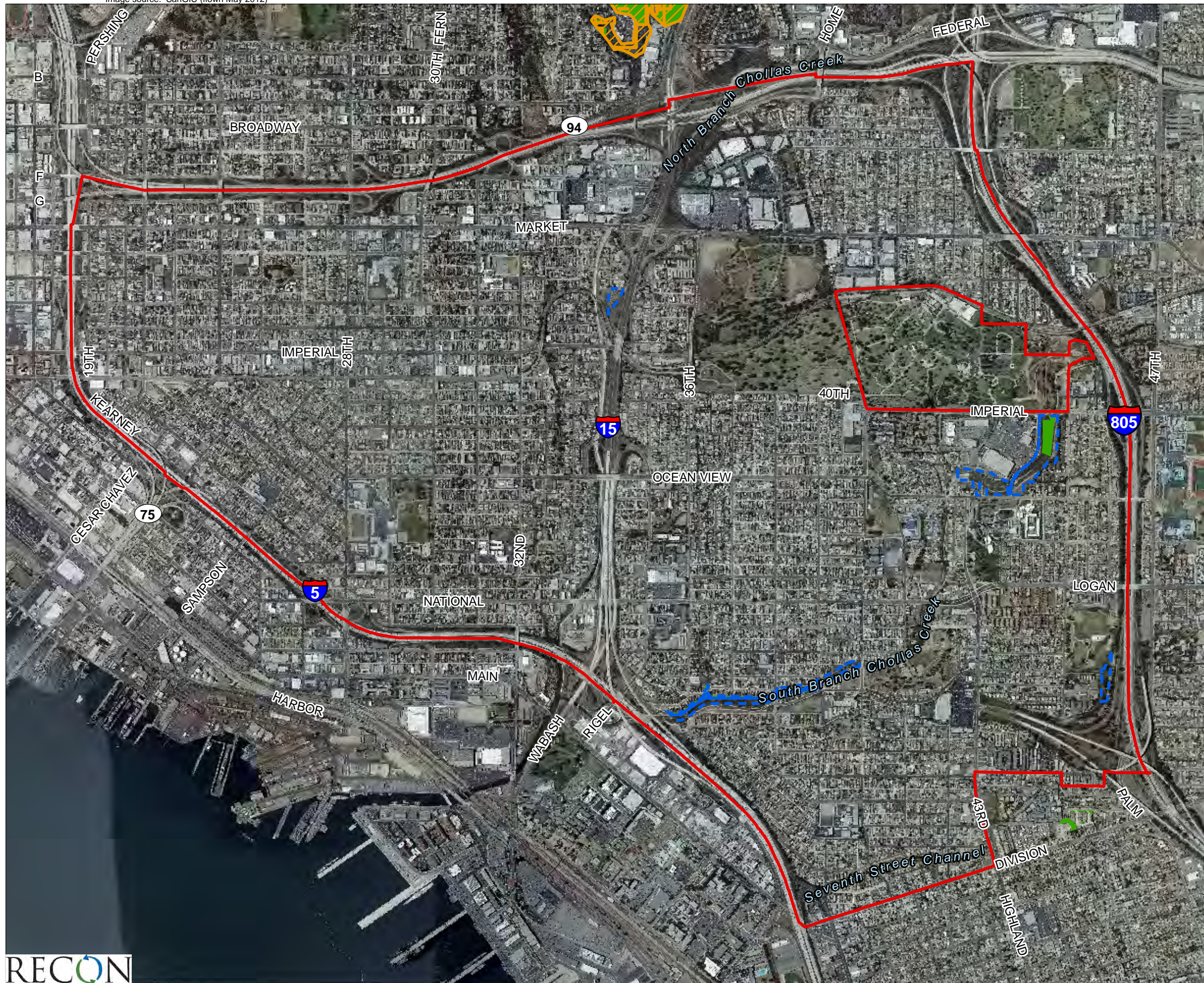
The MHPA has not been mapped within the SESD CPU Area (Figure 8a). The MHPA is located within the north-central portion of the Encanto Neighborhoods CPU Area in Emerald Hills Canyon Open Space and in the Valencia Park area (Figure 8b). Much of the sensitive vegetation and many of the sensitive species occurrences within the Encanto Neighborhoods CPU Area are located within or adjacent to the MHPA.

The MHPA that occurs within the Encanto Neighborhoods CPU Area has been conserved according to the SanGIS Conserved Lands database (SanGIS 2013; see Figure 8b). Less than 0.1 acre of MHPA falls outside areas mapped as conserved lands, but this is likely the result of discrepancies between mapping methods and is not anticipated to translate to a real difference on the ground. The Conserved Lands database provides a comprehensive inventory of land that is legally conserved to protect natural habitats, species, and open space; contribute to the existing planned regional habitat preserve system; and managed to protect the open space or natural resources into the future. These lands may be owned by the City or other agencies, may have easements, may be dedicated, or may have some restrictions placed upon the property through the City's processes that protects the overall quality of the resources and prohibits development. The MHPA lands within the Encanto Neighborhoods CPU area are owned and managed by the City of San Diego. Therefore, the MHPA is fully assembled in the Encanto Neighborhoods CPU Area.

## **6.0 Project Impacts and Significance**

Impacts to biological resources associated with implementation of the CPUs are analyzed below. As this is a program-level analysis of impacts associated with Plan buildout, policy changes, and proposed programs, this section addresses broad impacts associated with the Plan update. Impacts are quantified only to provide rough approximations, scale, and a basis for discussion and are based on currently available data, discussed above in Section 4.0. Project-specific surveys and analyses would be needed for future project-level review. Impact areas were derived using Geographic Information System (GIS) software and were based on the CPU land use plans.





- Southeastern San Diego CPU Area
- Planned Open Space
- City of San Diego MHPA
- SANDAG Conserved Land



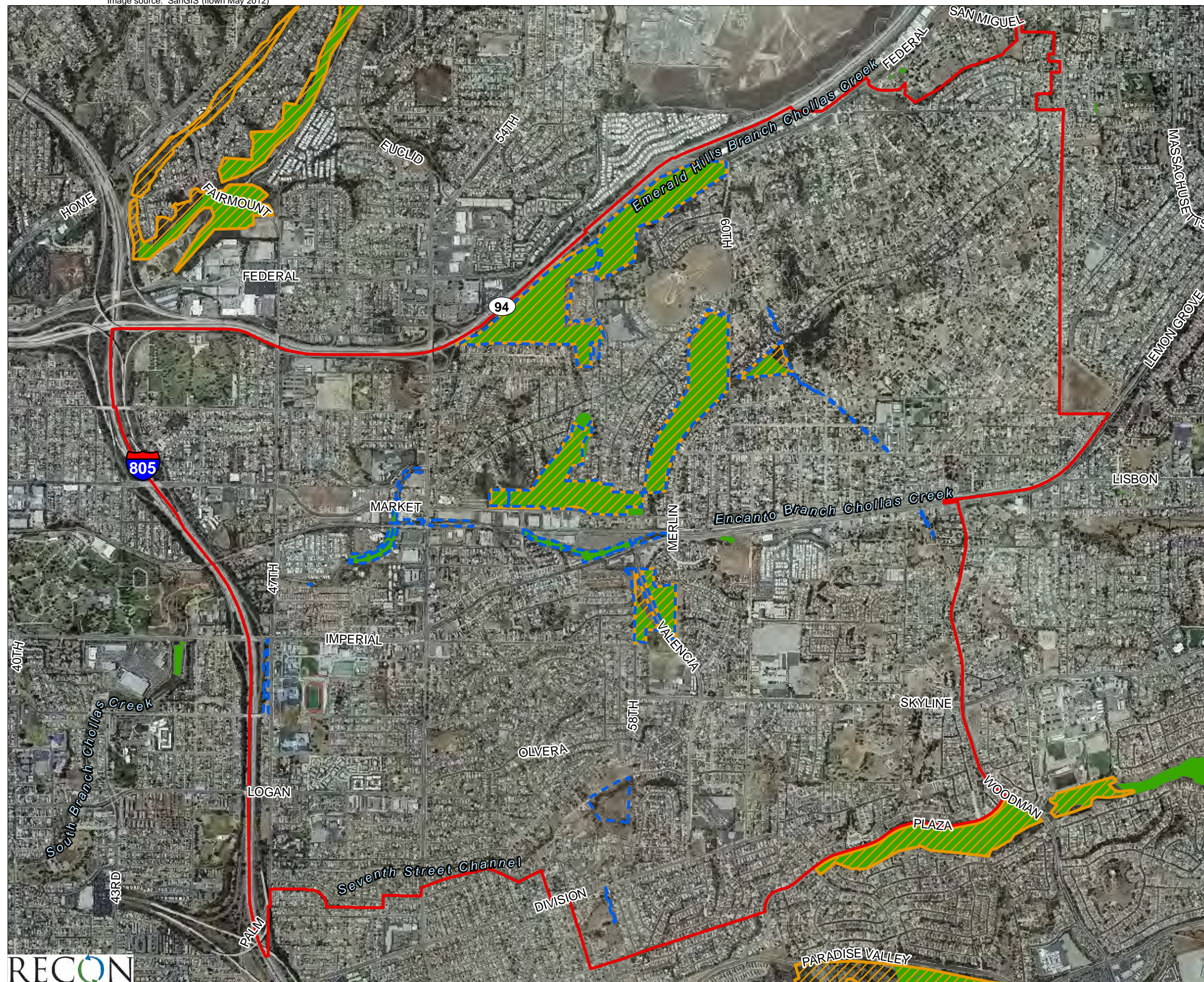
FIGURE 8a

Location of MHPA In Relation to  
Conserved Lands and Proposed Open Space  
under the Southeastern San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Planned Open Space
- City of San Diego MHPA
- SANDAG Conserved Land



FIGURE 8b

Location of MHPA In Relation to Conserved Lands and Proposed Open Space under the Encanto Neighborhoods CPU Area



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“Proposed impacts” comprise areas where vegetation communities overlap with the following categories of development according to the CPU land use plans: residential, commercial, industrial, institutional, cemetery, schools/public facilities, park, and right-of-way. The impacts listed in Table 7 are presented by CPU area and have been calculated using the MHPA boundary that includes the proposed additions and deletions resulting from the boundary line correction (BLC; further discussed in Section 6.6 below) that was evaluated as part of the Encanto Neighborhoods CPU process.

The biological impacts of the CPU were evaluated in accordance with the City of San Diego’s CEQA Significance Determination Thresholds (2011), the Biology Guidelines (City of San Diego 2012), and the MSCP (City of San Diego 1997). Mitigation would be required for impacts that are considered significant under these guidelines.

## **6.1 Sensitive Vegetation Community Impacts**

The CPU land use plans could result in future impacts to approximately 48.9 acres of mapped vegetation within the SESD CPU Area and approximately 255.0 acres within the Encanto Neighborhoods CPU Area (Figures 9a and 9b). Table 7 summarizes the acreage of vegetation communities that would be impacted by buildout of each CPU. The impact footprint does not include land previously characterized as developed. Furthermore, although impacts to non-native vegetation and disturbed land (Tier IV habitats) are presented in Table 7 and on Figures 9a–b, impacts to these vegetation communities would not be considered significant unless they support sensitive flora or fauna. Only impacts to sensitive vegetation communities or habitat, as defined by the City’s Biology Guidelines (wetlands or Tier I, II, IIIA, or IIIB habitats) and ESL Regulations, would be considered significant (see Section 5.3.1).

Implementation of the CPUs has the potential to result in loss of on-site sensitive vegetation communities. These sensitive habitats include wetland communities and upland communities in Tiers I, II, and IIIB, as shown on Figures 10a and 10b. Potential impacts to sensitive vegetation communities would include the loss of southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, non-native riparian, maritime succulent scrub, Diegan coastal sage scrub, valley and foothill grassland, and non-native grassland. Impacts to wetlands are discussed further in Section 6.4. Table 7 provides the acreage of each habitat type that would be impacted by implementation of the CPU land use plans.

As actions such as trail construction, passive recreation, and removal of concrete channels within the open space system and Chollas Creek are allowed and encouraged as part of the CPU policies (see Tables 1 and 2; Southeastern CPU policies RE-18, RE-21, and CS-14; Encanto CPU policies UD-6, RE-21, and RE-22), additional direct impacts to sensitive vegetation communities may occur that are not reflected in the impact areas shown on Figures 9a–9b and 10a–10b.

**TABLE 7**  
**ANTICIPATED IMPACTS TO VEGETATION COMMUNITIES WITHIN THE SOUTHEASTERN SAN DIEGO**  
**AND ENCANTO NEIGHBORHOODS CPU AREAS**

Vegetation Communities/ Land Cover Type	Southeastern San Diego CPU Impact Area			Encanto Neighborhoods CPU Impact Area		
	Outside MHPA		Total	Outside MHPA*		Total
	Conserved	Not Conserved		Conserved*	Not Conserved	
<b>Wetland Vegetation Communities</b>						
Southern cottonwood-willow riparian forest	–	–	–	–	0.6	0.6
Southern riparian scrub	–	0.7	0.7	–	0.1	0.1
Mule fat scrub	–	–	–	–	0.1	0.1
Vernal pool	–	–	–	–	–	–
Non-native riparian	–	0.1	0.1	–	2.2	2.2
<b>Upland Vegetation Communities</b>						
<b>Tier I</b>						
Maritime succulent scrub	–	–	–	–	16.8	16.8
<b>Tier II</b>						
Diegan coastal sage scrub	–	0.4	0.4	–	24.2	24.2
Diegan coastal sage scrub: coastal form	–	–	–	–	–	–
<b>Tier IIIB</b>						
Valley and foothill grassland	–	–	–	–	11.9	11.9
Non-native grassland	–	0.1	0.1	–	10.1	10.1
<b>Tier IV</b>						
Non-native vegetation	–	–	–	–	2.5	2.5
Disturbed land	–	47.7	47.7	–	186.5	186.5
<b>TOTAL</b>	–	<b>48.9<sup>†</sup></b>	<b>48.9<sup>†</sup></b>	–	<b>255.0</b>	<b>255.0</b>

\*According to the GIS impact analysis, approximately 0.8 acre falls within areas mapped as MHPA and 0.7 acre falls within conserved lands (SanGIS 2013). However, at this level of analysis, these areas are likely only a product of inaccuracies or inconsistencies in the available data due to variation in mapping sources and methods.

<sup>†</sup>Slight variations in acreage totals are due to rounding.

However, beneficial effects on sensitive vegetation communities within open space are also anticipated as a result of implementation of the CPUs. For example, various policies (see Tables 1 and 2; SESD CPU policies PF-20, RE-10, RE-19, CS-13, and CS-15; Encanto Neighborhoods CPU policies UD-95, PF-23, RE-19, RE-20, RE-24, and CS-13) provide measures for protection of habitat within open space lands. Measures include prohibiting the installation of new concrete channels for flood control within Chollas Creek, limiting public use of canyons and hillsides to designated trails, revegetating open space lands with native plants, preventing off-road activities and off-leash dog areas within open space, removing invasive species from Chollas Creek, and preparing a comprehensive plan for management of Chollas Creek open space system and area canyons.

## **6.2 Sensitive Plant Species Impacts**

Development within the CPU areas may result in the following types of impacts to sensitive plant species: direct removal by grading or brush clearing, including thinning for fuel management; compaction within root zones of trees; removal from construction of permanent roads and structures; further introduction of non-native invasive plant species due to expansion of development; trampling and compaction from recreational users adjacent to development; and change in water regime from addition of impervious surfaces, irrigation practices, and topographical changes. These impacts may be direct, indirect, short-term, and/or long-term. Impacts to (e.g., reduction in number of) unique, rare, endangered, or sensitive species of plants may occur with implementation of the CPUs and would be considered significant. Impacts to sensitive species could be mitigated at the project level in accordance with ESL Regulations and the City's Biology Guidelines.

Buildout in accordance with the CPUs has the potential to impact 50 sensitive plant species known or with potential to occur within the CPU areas (see Table 5). However, many of these species have low potential to occur within the CPU areas, and the majority of the potentially suitable habitat occurs within the MHPA and conserved lands. Due to the fact that the biological resource assessment is based on secondary source information rather than site-specific field surveys, the impacts would be refined at individual project-level review. The program-level analysis identifies areas of potential impacts associated with implementation of the overall CPUs; therefore, site-specific surveys would be conducted for future project-level review to verify the presence of sensitive plant species occurring on individual properties and determine the extent of any potential impacts.



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- Southeastern San Diego CPU Area
- Proposed Impacts
- Vegetation Communities and Land Cover Types**
  - Diegan Coastal Sage Scrub
  - Southern Riparian Scrub
  - Non-Native Grassland
  - Non-Native Riparian
  - Disturbed Land
  - Urban/Developed

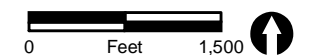


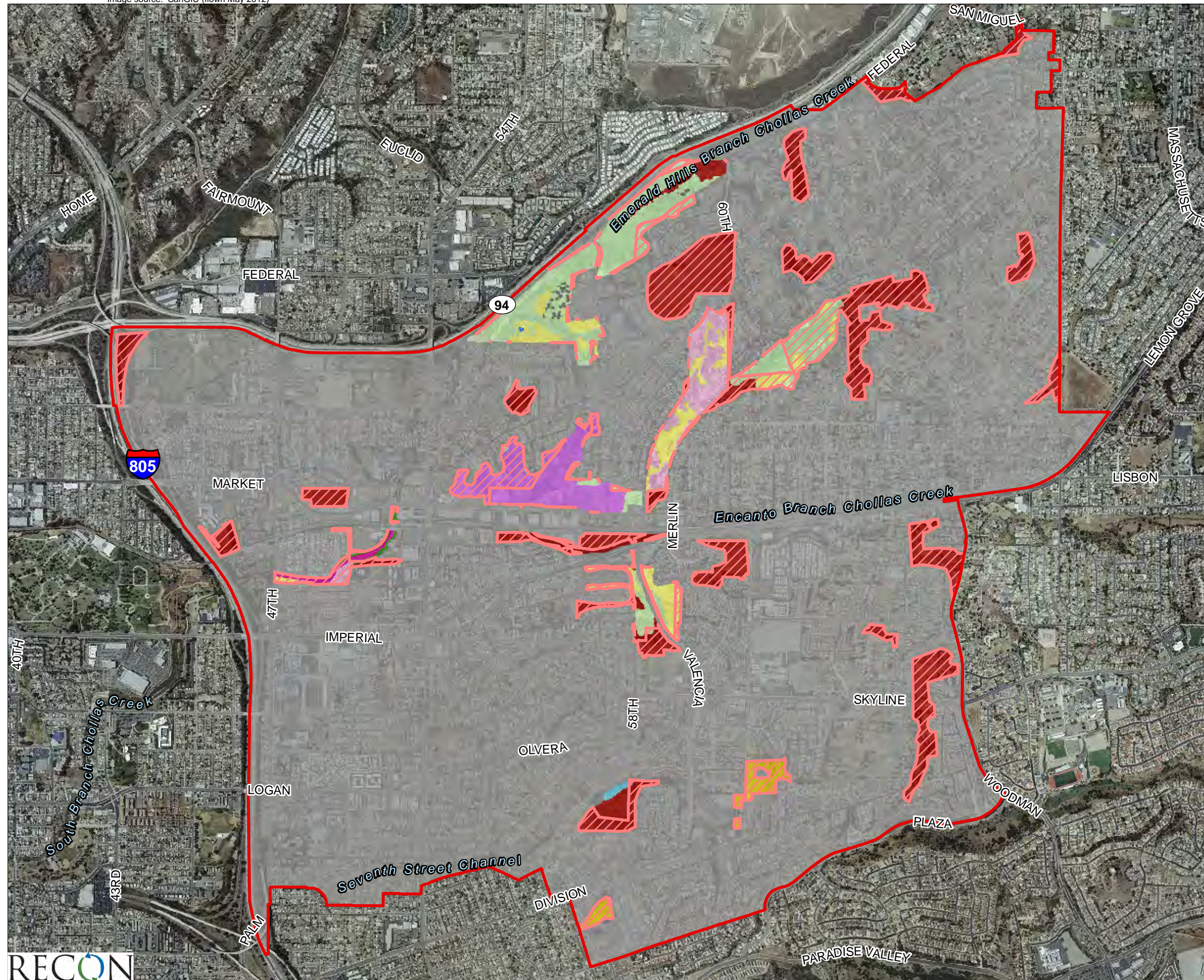
FIGURE 9a

Proposed Impacts to Vegetation Communities within the Southeastern San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Proposed Impacts
- Vegetation Communities and Land Cover Types**
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub: Coastal Form
- Maritime Succulent Scrub
- Mule Fat Scrub
- Southern Cottonwood-Willow Riparian Forest
- Southern Riparian Scrub
- Vernal Pool
- Valley and Foothill Grassland
- Non-Native Grassland
- Non-Native Riparian
- Non-Native Vegetation
- Disturbed Land
- Urban/Developed



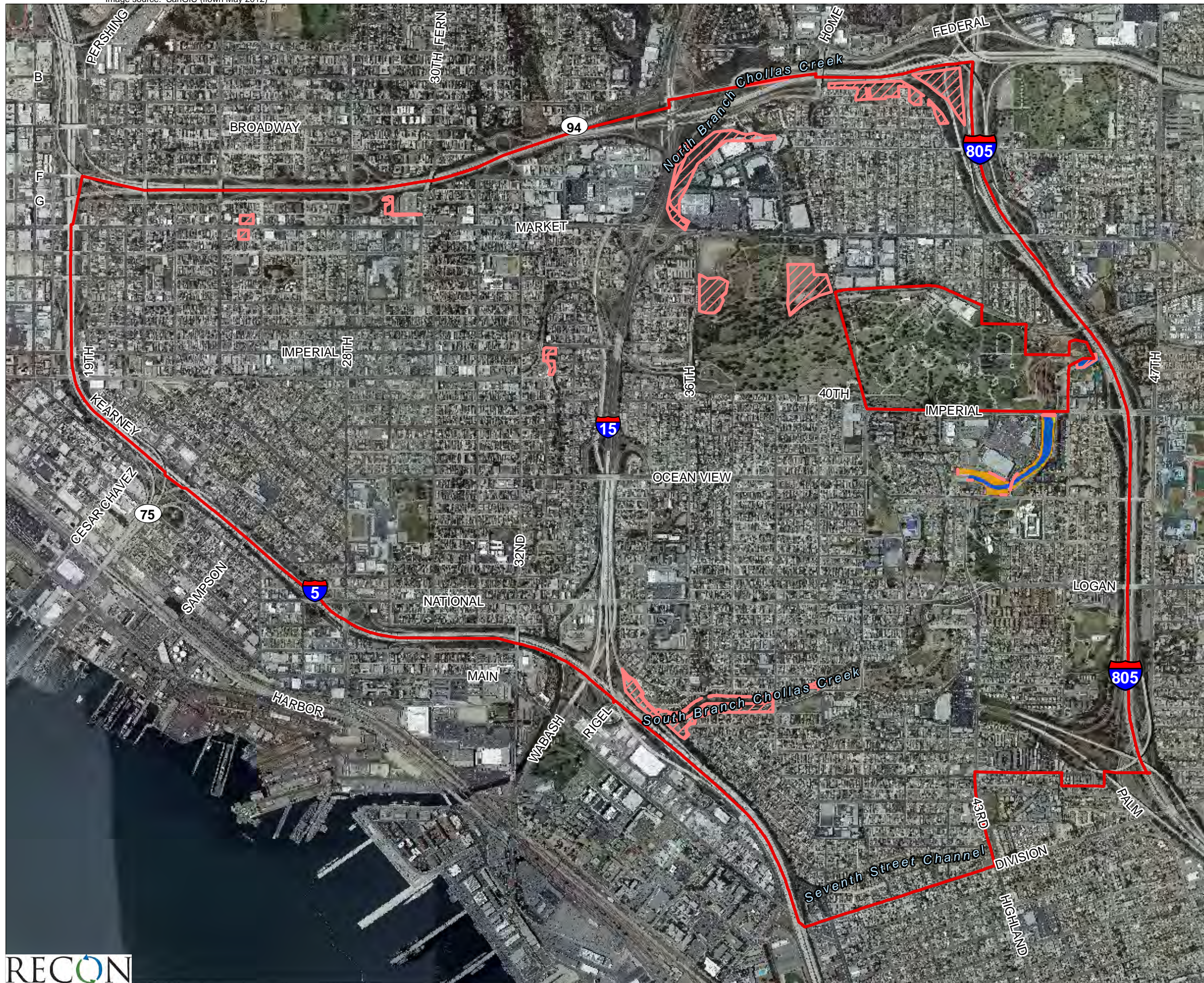
FIGURE 9b

Proposed Impacts to Vegetation Communities within the Encanto Neighborhoods CPU Area



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- Southeastern San Diego CPU Area
- Proposed Impacts
- Vegetation Classification**
  - Tier II Uplands
  - Tier IIIB Uplands
  - Wetlands

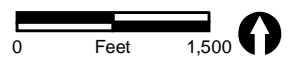
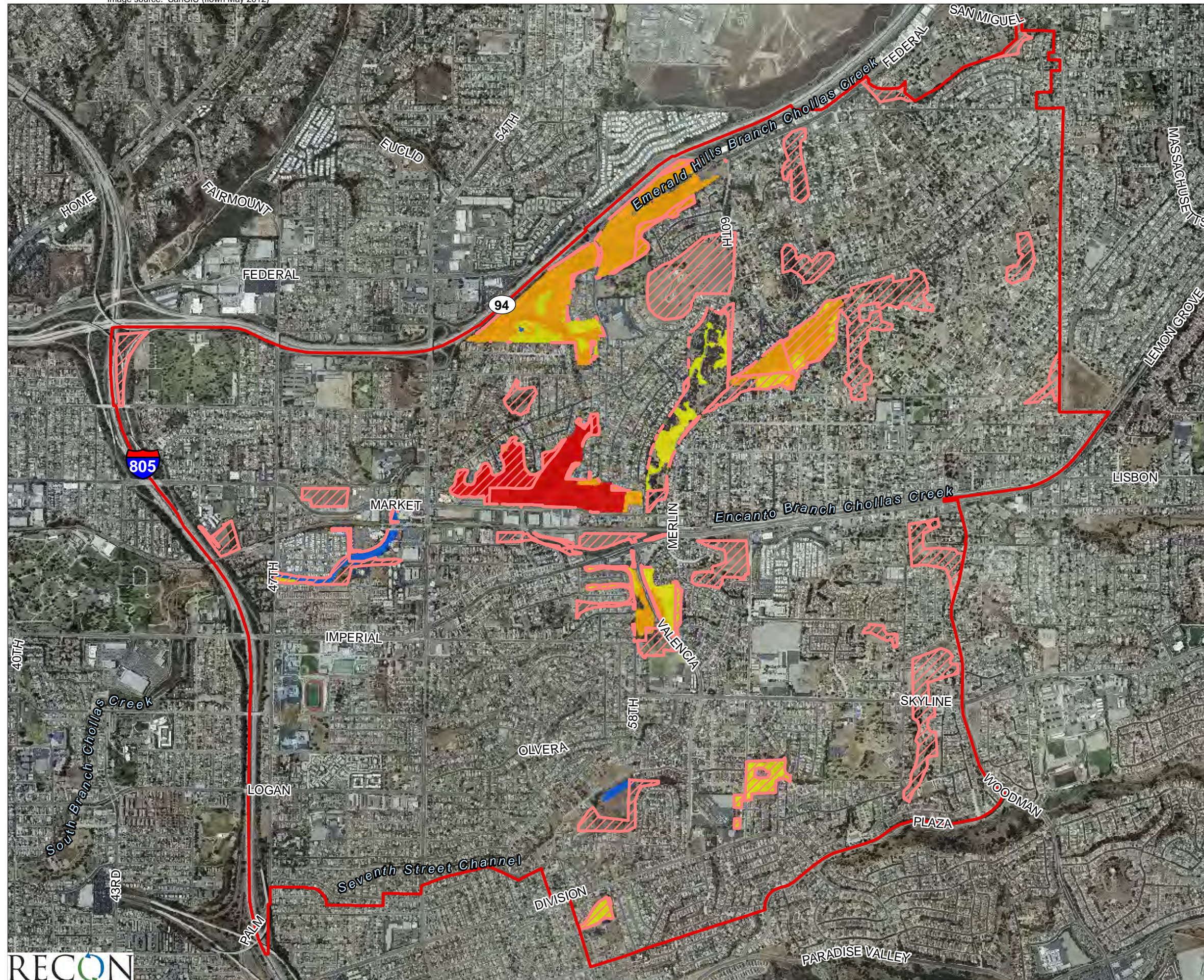


FIGURE 10a  
Proposed Impacts to Sensitive Vegetation  
Communities within the Southeastern  
San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Proposed Impacts
- Vegetation Classification**
- Tier I Uplands
- Tier II Uplands
- Tier IIIB Uplands
- Wetlands



FIGURE 10b  
Proposed Impacts to Sensitive Vegetation  
Communities within the  
Encanto Neighborhoods CPU Area



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Due to these species' known occurrence within the SEDS CPU Area, implementation of the SEDS CPU has the potential to impact the following sensitive plant species, at a minimum:

- coast barrel cactus (MSCP covered, CNPS List 2B.1) and
- California adolphia (CNPS List 2B.1).

Due to these species' known occurrence within the Encanto Neighborhoods CPU Area, implementation of the Encanto Neighborhoods CPU has the potential to impact the following sensitive plant species, at a minimum:

- Otay tarplant (California endangered, federally threatened, MSCP covered and narrow endemic, and CNPS List 1B.1),
- San Diego County viguiera (CNPS List 4.2),
- San Diego marsh-elder (CNPS List 2B.2),
- Robinson's pepper-grass (CNPS List 4.3),
- Lewis's evening primrose (CNPS List 3),
- California adolphia (CNPS List 2B.1),
- California box-thorn (CNPS List 4.2 species), and
- southwestern spiny rush (CNPS List 4.2 species).

## **6.3 Sensitive Wildlife Species Impacts**

Impacts to wildlife species may result from the loss of approximately 304 acres of potential habitat within the CPU areas. Potential habitat may include stands of native and non-native vegetation. Development within the CPU areas may result in the following types of impacts to wildlife species: direct impacts to individuals and active nests/burrows from brush removal, grading, construction, and vehicle strikes; removal, fragmentation, or modification of suitable habitat (e.g., habitat conversion) resulting in displacement of individuals; indirect impacts from increased noise or lighting during construction or increased intensity of land use; and contamination of habitat from urban runoff. These impacts may be direct, indirect, short-term, and/or long-term. Impacts to common wildlife species are considered less than significant, as they are not classified as sensitive by the City of San Diego (City of San Diego 2012). However, impacts to (e.g., reduction in number of) unique, rare, endangered, sensitive, or fully protected species of wildlife may occur and would be considered significant. Impacts to sensitive species could be mitigated at the project level in accordance with ESL Regulations and the City's Biology Guidelines.

Buildout in accordance with the CPUs has the potential to impact 27 sensitive wildlife species known or with potential to occur within the CPU areas (see Table 6), as well as active nests of raptors or migratory bird species. However, many of these species have low potential to occur within the CPU areas. In addition, some sensitive species, such as

Cooper's hawk, have become acclimated to urban environments. Therefore, while direct impacts to individuals of this species may occur, long-term effects on the species as a whole may be negligible. Precise locations of sensitive wildlife species and extent of habitat would need to be identified through on-site reconnaissance at the individual project level in conjunction with proposed future development.

Due to these sensitive wildlife species' known occurrence within or immediately adjacent to the SEDS CPU Area and presence of potentially suitable habitat, at a minimum, implementation of the SEDS CPU has the potential to impact the following sensitive wildlife species:

- Cooper's hawk (MSCP-covered species) and other raptors (protected by the California Fish and Game Code),
- least Bell's vireo (federally endangered, California endangered, and MSCP-covered),
- coastal California gnatcatcher (federally threatened, CDFW species of special concern, and MSCP-covered), and
- migratory birds (protected by the California Fish and Game Code and MBTA).

Due to these sensitive wildlife species' known occurrence within or adjacent to the Encanto Neighborhoods CPU Area and presence of potentially suitable habitat, at a minimum, implementation of the Encanto Neighborhoods CPU has the potential to impact the following sensitive wildlife species:

- Cooper's hawk (MSCP-covered species) and other raptors (protected by the California Fish and Game Code),
- least Bell's vireo (federally endangered, California endangered, and MSCP-covered),
- coastal cactus wren (CDFW species of special concern and MSCP-covered),
- coastal California gnatcatcher (federally threatened, CDFW species of special concern, and MSCP-covered), and
- migratory birds (protected by the California Fish and Game Code and MBTA).

## 6.4 Jurisdictional Waters/Wetlands Impacts

Potentially jurisdictional wetlands and waters have been mapped within both CPU areas (County of San Diego 2010; SANDAG 2012; USFWS 2012). Figures 11a and 11b illustrate the locations of potential impacts to wetlands and waters with implementation of the CPUs. As shown in Table 7, potential impacts to wetland vegetation communities would include the loss of southern cottonwood-willow riparian forest, southern riparian scrub, mule fat scrub, and non-native riparian.

The City of San Diego's Biology Guidelines, ESL Regulations, and MSCP Subarea Plan require, in general, that impacts to wetlands, which include vernal pools, shall be avoided and that a sufficient buffer shall be maintained around all wetlands to protect wetland functions and values. In the case of vernal pools, avoidance includes maintaining a sufficient amount of the pool's watershed area necessary for its continued viability and providing a buffer around the vernal pool to protect wetland functions and values. Buffer distances are typically 100 feet, but in some cases a lesser buffer may be approved provided it can be demonstrated that the functions and values of the wetland are not compromised.

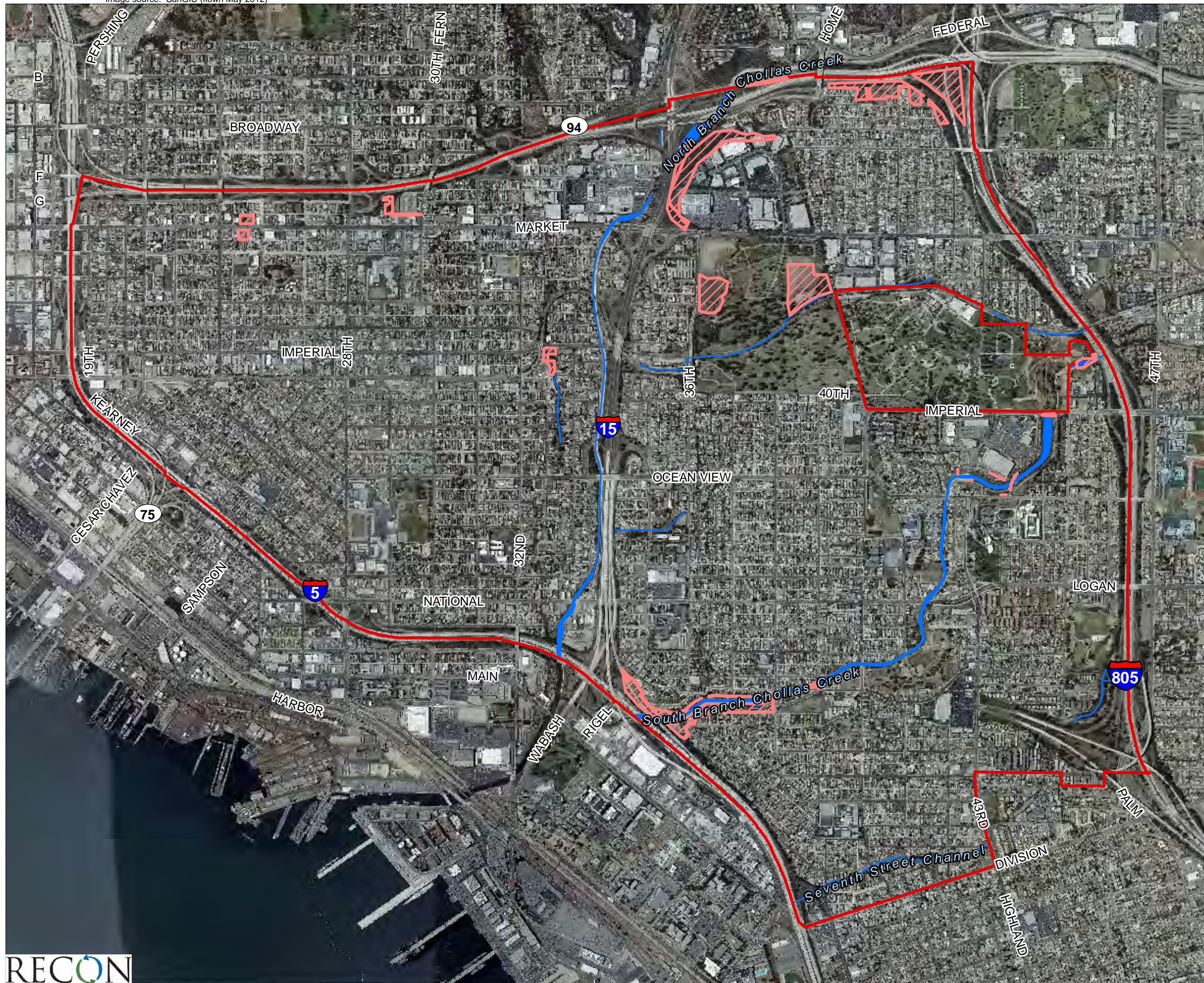
Projects with proposed impacts to wetlands in the City of San Diego require a deviation from the ESL Regulations. Wetland impacts may be considered under the following three options: Essential Public Project, Economic Viability Option, or Biologically Superior Option. Under the wetland deviation process for the Essential Public Projects and Economic Viability Options, impacts must be avoided, but if not feasible, then impacts must be minimized to the maximum extent practicable. Under the wetland deviation process for the Biologically Superior Option, only wetland resources of low biological quality may be impacted and must result in a biologically superior outcome. The assessment of low biological quality would be specific to the resource type impacted (e.g., vernal pools, riparian, and unvegetated channels), and shall include consideration of the following factors: use of the wetland by federal and/or state endangered, threatened, sensitive, rare and/or other indigenous species, diversity of native flora and fauna enhancement or restoration potential, habitat function/ecological role, connectivity to other wetland or upland systems, hydrologic functions, status of watershed, and source and quality of water. In addition, impacts to vernal pools would require special assessments as noted in Section 6.4.1.

Impacts to wetlands would be considered significant, but could be mitigated for at the project level. Projects with any proposed impacts to wetlands must clearly demonstrate that: (1) there is no least environmentally damaging alternative that would reduce/avoid the impact; (2) impacts are minimized to the maximum extent possible; and (3) impacts are fully mitigated in accordance with the City of San Diego's Biology Guidelines and ESL Regulations.



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- Southeastern San Diego CPU Area
- Proposed Impacts
- Potentially Jurisdictional Wetlands and Waters

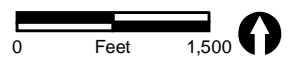


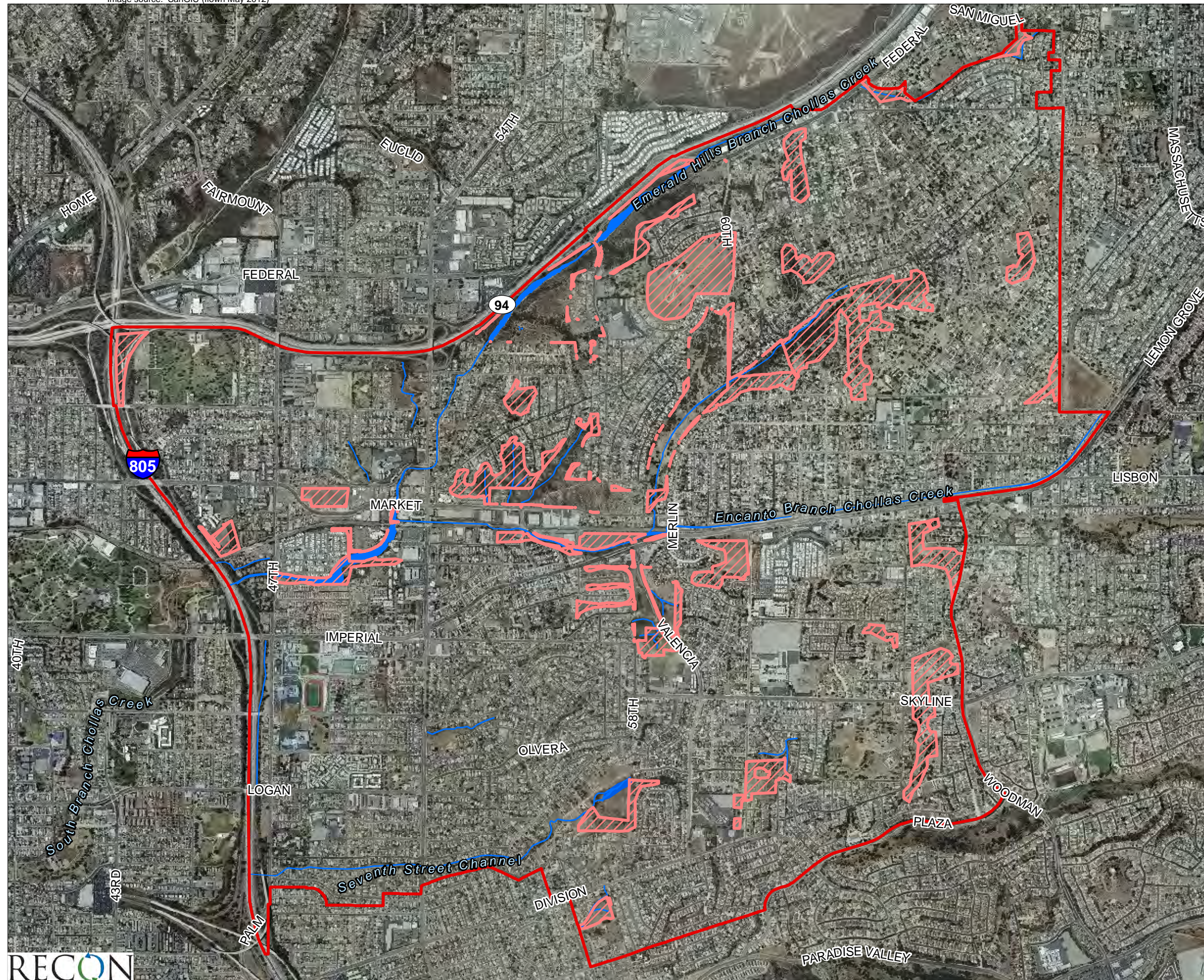
FIGURE 11a

Proposed Impacts to Potentially Jurisdictional  
Wetlands and Waters within the  
Southeastern San Diego CPU Area



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- Encanto Neighborhoods CPU Area
- Proposed Impacts
- Potentially Jurisdictional Wetlands and Waters



FIGURE 11b  
Proposed Impacts to Potentially Jurisdictional  
Wetlands and Waters within the  
Encanto Neighborhoods CPU Area



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### **6.4.1 Vernal Pool Impacts**

Three vernal pools have been mapped at one location within the Emerald Hills Canyon Open Space in the Encanto Neighborhoods CPU Area (see Figures 9b and 10b). These pools are mapped within the MHPA and City-owned open space; the pools do not fall within the proposed development footprint associated with implementation of the CPU. Although actions such as trail construction and passive recreation within the open space system and Chollas Creek are allowed and encouraged as part of the CPU policies, various policies (see Table 2; Encanto Neighborhoods CPU policies UD-95, PF-23, RE-19, RE-20, RE-24, and CS-13) provide measures for protection of habitat and sensitive biological resources within open space lands. Measures include limiting public use of canyons and hillsides to designated trails, fencing trails adjacent to very sensitive areas, revegetating open space lands with native plants, and preventing off-road activities and off-leash dog areas within open space. Adherence to the CPU policies is anticipated; therefore, potential impacts to vernal pools would be avoided.

### **6.4.2 Other Jurisdictional Wetland Impacts**

Implementation of the CPU has potential to result in impacts to both wetland and non-wetland streambed waters regulated by the ACOE, CDFW, RWQCB, and City of San Diego. In addition, the USFWS would be involved under Section 7 of the FESA during consultation initiated by the ACOE during the 404 permit process if federal listed species are present. If there is no federal nexus to jurisdictional waters, then a Section 10(A) authorization from USFWS would be required to cover any potential affects to federal listed species. There is also the potential for additional unmapped non-wetland waters of the U.S. and streambeds to occur within the CPU areas. Future development has the potential to result in impacts to habitat and drainages that are under the jurisdiction of the ACOE according to Section 404 of the CWA, RWQCB in accordance with Section 401 of the CWA, and CDFW under Section 1600 of the Fish and Wildlife Code. In addition, impacts to wetlands would require a deviation from the City of San Diego's ESL Regulations.

As the program-level analysis identifies areas of potential impacts associated with implementation of the overall CPUs, site-specific surveys would be conducted for future project-level review to verify the presence of jurisdictional wetlands and waters occurring on individual properties and determine the extent of any potential impacts. It is recognized that as future development projects come forward, the impacts could be lessened or avoided depending on site-specific project designs. All impacts to wetlands are considered significant.



## **6.5 Wildlife Movement Corridor Impacts**

As discussed above in Section 5.5, no regional wildlife corridors have been identified within the CPU areas; therefore, no impact to identified regional wildlife corridors per the MSCP Subarea Plan would occur. The urban canyons and creeks within the CPU areas are only anticipated to function as stepping stones for flighted species and local corridors for dispersal of urban-acclimated species amongst patches of habitat that are ultimately constrained by development. The canyons and water courses within the CPU areas are not anticipated to function as significant wildlife movement corridors for large mammals.

Nonetheless, in the SESD CPU Area, small sections of Chollas Creek have been conserved (SanGIS 2013; see Figure 8a), and in the Encanto Neighborhoods CPU Area, many of these canyon areas and creeks are included in the adopted MHPA and existing conserved lands (SanGIS 2013) and open space system (see Figure 8b). Additional areas are proposed for open space designation as part of the Southeastern and Encanto CPUs (see Planned Open Space on Figures 8a and 8b). With the existing MHPA, conserved lands and open space, as well as the proposed open space and CPU policies calling for protection of natural areas and creeks (e.g., SESD CPU policies PF-20, RE-10, RE-12, RE-19, and CS-15; Encanto CPU policies UD-95, PF-23, RE-10, RE-12, RE-19, RE-24, and CS-12 through CS-17), no significant impacts are anticipated to occur to local wildlife movement corridors within the Encanto Neighborhoods CPU Area.

## **6.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area Impacts**

As designated in the City's MSCP Subarea Plan, the MHPA is the area identified for habitat conservation. No MHPA is mapped within the SESD CPU Area (see Figure 8a); therefore, no direct impacts or edge effects to MHPA are anticipated to occur in the SESD CPU area. In the Encanto Neighborhoods CPU Area, the MHPA is primarily a small network of canyons, undeveloped slopes, and drainages that occur along or adjacent to the Emerald Hills and Encanto Branches of Chollas Creek (see Figure 8b). Overall, the MHPA in the Encanto Neighborhoods CPU Area supports sensitive habitats (vernal pools, maritime succulent scrub, Diegan coastal sage scrub, and non-native grassland) and populations of sensitive plant and wildlife species.

Due to existing development mapped within the MHPA, a boundary line correction was evaluated as part of the Encanto Neighborhoods CPU process. The BLC for the project corrected the MHPA over six City-owned parcels from the Encanto Neighborhoods CPU and was considered in coordination with the Wildlife Agencies. The correction removed existing development (e.g., single-family homes) and expanded the MHPA to include additional biological resources and is now coterminous with the City-owned open space parcel boundaries. The MHPA correction is consistent with the goals of the MSCP to conserve biological resources and allow for existing and future development in

appropriate areas. The MHPA BLC for the Encanto Neighborhoods CPU area would result in the addition of 15.21 acres to the MHPA and deletion of 4.51 acres from the MHPA, for a net gain of 10.7 acres to the MHPA.

Future development located adjacent to the MHPA has the potential to conflict with the MSCP Subarea Plan. However, the Encanto Neighborhoods CPU contains specific policies that require future projects to implement the ESL Regulations, the City's Biology Guidelines, and the MSCP Subarea Plan, including the MHPA Land Use Adjacency Guidelines to reduce impacts on biological resources, open space, land form, or other environmentally sensitive areas (Encanto CPU policies CS-12, CS-14, and CS-19).

As shown on Figure 8b, the Encanto CPU is consistent with the current MHPA preserve area boundaries. Proposed uses within open space and the MHPA are consistent with the allowed uses outlined in Section 1.4.1 of the MSCP Subarea Plan, which include but are not limited to: (1) passive recreation, (2) utility lines and roads in compliance with policies in Section 1.4.2 of the MSCP Subarea Plan, (3) limited water facilities and other essential public facilities, (4) limited low-density residential uses, and (5) Zone 2 brush management. The MSCP Subarea Plan provides specific requirements relating to the implementation of these allowed uses. All activities must be consistent with the management goals and objectives; general management directives; specific management policies and directives for urban habitat lands; and vernal pool management guidelines outlined in Sections 1.5.1, 1.5.2, 1.5.7, and 1.5.11, respectively, of the MSCP Subarea Plan. Impacts from these allowed uses would be determined at the project level and would require subsequent environmental review.

## **6.6.1 MHPA Land Use Adjacency Guidelines**

The MHPA has been designed to maximize conservation of sensitive biological resources, including sensitive species. When land is developed adjacent to the MHPA, there is a potential for indirect impacts that may degrade the habitat value or disrupt animals within the preserve area. These indirect effects of project development may include habitat insularization, drainage/water quality impacts, lighting, noise, roadkill, introduction of exotic plant species or nuisance animal species, and human intrusion. These impacts could be short-term resulting from construction activities, or long-term. Short-term construction impacts could result in disruption of nesting and breeding, thus affecting the population of sensitive species. Long-term development impacts may reduce habitat quality and suitability for sensitive species. To address these concerns, the MSCP includes a set of MHPA Land Use Adjacency Guidelines (see Section 1.4.3 of the MSCP Subarea Plan) that are to be evaluated and implemented at the project level.

Indirect effects can occur wherever development and human activity is adjacent to natural areas. These effects include those due to increased runoff; trampling and removal of plant cover due to hiking, biking, and other human activities; increased presence of toxins; increased nighttime light levels; redirection or blockage of wildlife



movement; and increased numbers of non-native and invasive plants. These indirect effects could reduce the quality of the MHPA. The Land Use Adjacency Guidelines require certain measures to be incorporated in the design of projects adjacent to the MHPA to reduce indirect impacts to a level that is less than significant.

Much of the MHPA that occurs within the Encanto Neighborhoods CPU Area is already surrounded by and immediately adjacent to development. Only a few areas exist where undeveloped land provides a buffer between MHPA and development. Implementation of the CPUs may decrease these existing buffers or introduce higher intensity land uses adjacent to MHPA, resulting in a potentially significant impact. However, the Encanto Neighborhoods CPU includes policies (e.g., policies RE-19, RE-20, CS-12, CS-19, CS-21, CS-24, and CS-35) that address indirect impacts, are consistent with the Land Use Adjacency Guidelines, and are expected to minimize the potential indirect impact to MHPA. Future development proposals would be required to address indirect impacts and incorporate the Land Use Adjacency Guidelines.

## **6.7 Consistency with Local Policies, Ordinances, and Adopted Plans**

The CPUs generally conform to the goals and requirements of existing policies, ordinances, and adopted plans, including the City of San Diego MSCP Subarea Plan, City of San Diego ESL and Landscape Regulations, Municipal Code, City of San Diego General Plan, Chollas Creek Enhancement Program, Commercial/Imperial Master Plan, National Avenue Master Plan, and San Diego Gas & Electric Subregional Natural Community Conservation Plan. Zoning used to implement the CPUs comply with the General Plan policies, and proposals within the CPUs are consistent with the General Plan. Many policies within the CPUs are carried directly over from the General Plan, and the overall approach of the CPUs fulfills the “City of Villages” strategy. Proposed CPU policies (e.g., Encanto CPU policies CS-14 and CS-19) specifically call for adherence to the ESL regulations, MSCP Subarea Plan, and City of San Diego Biology Guidelines.

## **6.8 Cumulative Impacts**

Preservation of the region’s biological resources has been addressed through the implementation of regional habitat conservation plans. Impacts to biological resources in the City of San Diego are managed through the adopted MSCP Subarea Plan, which is incorporated by reference in the City’s adopted General Plan.

Cumulative impacts from the project were evaluated with regard to past, present, and future projects within the local area. The following city-wide and regional plans were identified for the evaluation of cumulative impacts: the City of San Diego General Plan, City of San Diego MSCP Subarea Plan, County of San Diego MSCP South County Subarea Plan, SANDAG Regional Comprehensive Plan, City of La Mesa 2012 General

Plan, National City General Plan and 2012 Comprehensive Land Use Update, and Lemon Grove General Plan. All but the City of La Mesa 2012 General Plan of the aforementioned city-wide and regional plans were determined to have significant biological impacts. The area of analysis extends, as appropriate, beyond the City's MSCP and into adjacent jurisdictions for this cumulative impacts analysis.

The CPUs are not anticipated to result in significant cumulative impacts to sensitive biological resources, as discussed below.

### **6.8.1 Sensitive Vegetation Communities**

All subsequent projects would be required to adhere to all federal, state, and local laws and ordinances, including the City of San Diego Biology Guidelines and ESL Regulations. Therefore, direct and indirect impacts to Tier I, II, and IIIB upland vegetation communities within the CPU areas are not expected to result in a significant cumulative impact, as these resources are adequately covered by the MSCP (City of San Diego 2011).

Although implementation of the CPUs has the potential to result in significant direct and indirect impacts to wetland vegetation communities, these impacts would be mitigated at the project-level. Projects with potential impacts to wetlands would be required to implement the Mitigation Framework identified in this report, which requires site-specific environmental review, analysis of potential impacts to biological resources, and recommendations for mitigation to reduce significant project-level biological resource impacts to below a level of significance. Although individual future projects implemented in accordance with the CPUs may contribute to incremental impacts, compliance with adopted CPU policies, the MSCP Subarea Plan, ESL Regulations, the Biology Guidelines, and strict adherence to the Mitigation Framework would ensure that impacts from future development would not be cumulatively significant.

### **6.8.2 Sensitive Plant Species**

All subsequent projects would be required to adhere to all federal, state, and local laws and ordinances, including the City of San Diego Biology Guidelines and ESL Regulations. Therefore, direct and indirect impacts to sensitive plant species occurring within the CPU areas (see Section 6.2) and covered by the MSCP would not generally be considered cumulatively significant (City of San Diego 2011).

Direct and indirect impacts to sensitive plant species occurring within the CPU areas (see Section 6.2) and not covered by the MSCP are expected to be adequately conserved through the MSCP's habitat-based mitigation plan. Potential significant direct and indirect impacts to sensitive plant species can be mitigated at the project-level to reduce impacts to below a level of significance. Although individual future projects implemented in accordance with the CPUs may contribute to incremental biological



resource impacts, compliance with adopted CPU policies, the MSCP Subarea Plan, ESL Regulations, the Biology Guidelines, and strict adherence to the Mitigation Framework would ensure that impacts from future development would not be cumulatively significant.

### **6.8.3 Sensitive Wildlife Species**

All subsequent projects would be required to adhere to all federal, state, and local laws and ordinances, including the City of San Diego Biology Guidelines and ESL Regulations. Therefore, direct and indirect impacts to sensitive wildlife species occurring within the CPU areas (see Section 6.3) and covered by the MSCP would not generally be considered cumulatively significant (City of San Diego 2011).

Although implementation of the CPUs has the potential to result in significant direct and indirect impacts to sensitive wildlife species (see Section 6.3), these impacts would be mitigated at the project-level. Projects with potential impacts to sensitive wildlife would be required to implement the Mitigation Framework identified in this report, which requires site-specific environmental review, analysis of potential impacts to biological resources, and recommendations for mitigation to reduce significant project-level biological resource impacts to below a level of significance. Although individual future projects implemented in accordance with the CPUs may contribute to incremental impacts, compliance with adopted CPU policies, the MSCP Subarea Plan, ESL Regulations, the Biology Guidelines, and strict adherence to the Mitigation Framework would ensure that impacts from future development would not be cumulatively significant.

### **6.8.4 Jurisdictional Waters/Wetlands**

The CPU incorporates several policies related to the protection of biological resources. These focus primarily on the CPUs' consistency with the City's ESL Regulations, the Biology Guidelines, and MSCP Subarea Plan Management Policies to protect the area's sensitive biological resources. This report also includes a Mitigation Framework for future development implemented in accordance with the CPUs.

Although implementation of the CPU has the potential to result in significant direct and indirect impacts to jurisdictional wetlands and waters, these impacts can be mitigated at the project-level. Future projects implemented in accordance with the CPUs would be required to implement the Mitigation Framework identified in this report, which requires site-specific environmental review, analysis of potential impacts to biological resources, and recommendations for mitigation to reduce significant project-level biological resource impacts to below a level of significance. Although each individual future project may contribute to incremental impacts, compliance with adopted CPU policies, the MSCP Subarea Plan, ESL Regulations, and the Biology Guidelines, and strict

adherence to the Mitigation Framework would ensure that impacts from future development would not be cumulatively significant.

### **6.8.5 Wildlife Movement Corridors**

No significant impacts to identified local or regional wildlife corridors have been identified. Therefore, no significant cumulative impacts would occur.

### **6.8.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area**

Implementation of the CPU policies and future compliance with established development standards contained in the City's ESL Regulations, Biology Guidelines, and other applicable regulations, as well as the MSCP Subarea Plan's Land Use Adjacency Guidelines, Management Policies and Directives, and Area Specific Management Directives, would serve to reduce impacts to MHPA to below a level of significance. In accordance with the MSCP, any modification to the MHPA boundaries would be required to result in protection of areas with equal or better biological values and would not result in significant direct or indirect impacts associated with environmental or habitat conservation plans. Therefore, direct and indirect impacts to sensitive vegetation communities and species as a result of MHPA boundary adjustments would generally not contribute to cumulative impacts to the long-term conservation of biological resources as described in the MSCP. As a result, cumulative impacts of the CPU in conjunction with city-wide and regional plans to the long-term conservation of biological resources as described in the MSCP would not be considered a significant cumulative impact.

## **7.0 Mitigation Framework**

Mitigation is required for impacts that are considered significant under the City of San Diego's Biology Guidelines (2012) and the City of San Diego's Development Services Department Significance Determination Thresholds (2011). All impacts to sensitive biological resources should be avoided to the maximum extent feasible and minimized when avoidance is not possible. Where impacts are not avoidable or cannot be minimized, mitigation is required to reduce impacts to a level of less than significant. Mitigation measures typically employed include resource avoidance, restoration or creation of habitat, dedication or acquisition of habitat, or payment of monies into the City of San Diego's Habitat Acquisition Fund or other City-approved mitigation bank. Mitigation measures would be determined and implemented at the project level according to the mitigation framework outlined below. Adherence to the mitigation framework is anticipated to minimize impacts to sensitive biological resources.



To reduce potentially significant impacts that would cause a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the CPU area, all subsequent projects developed in accordance with the CPU shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012). The locations of any sensitive plant species, including listed, rare, and narrow endemic species, as well as the potential for occurrence of any listed or rare wildlife species, shall be recorded and presented in a biological resources report. Based on available habitat within the CPU area, focused presence/absence surveys shall be conducted in accordance with the biology guidelines and applicable resource agency survey protocols to determine the potential for impacts resulting from the project on these species. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the FESA, MBTA, CESA, MSCP Subarea Plan, and ESL Regulations.

In addition, site-specific project-level jurisdictional wetlands delineations would be subsequently carried out following the methods outlined in the ACOE 1987 *Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region* (2008) and any required updated or additional standards. A determination of the presence/absence and boundaries of any waters of the U.S. and waters of the State shall also be completed following the appropriate ACOE guidance documents for determining Ordinary High Water Mark boundaries. The limits of any riparian habitats on-site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (e.g., vernal pools) that may not be within the ACOE jurisdiction under the CWA or meet other federal jurisdictional criteria but are regulated by the FESA, CESA, and/or RWQCB. The City no longer has federal coverage for vernal pools containing sensitive species. Although no impacts are anticipated to occur to vernal pools or vernal pools species, a USFWS permit would be required if impacts to vernal pools with sensitive species or basins with fairy shrimp were to occur.

## **7.1 Sensitive Vegetation Communities Mitigation**

### Mitigation for Impacts on Sensitive Upland Habitats

Future projects implemented in accordance with the CPUs resulting in impacts on sensitive upland Tier I, II, IIIA, or IIIB habitats shall implement avoidance and minimization measures consistent with the City Biology Guidelines and MSCP Subarea Plan and provide suitable mitigation in accordance with Table 3 in the City's Biology Guidelines (see Table 8 below) and MSCP Subarea Plan. Future project-level grading and site plans shall incorporate project design features to minimize direct impacts on sensitive vegetation communities including but not limited to riparian habitats, wetlands,

maritime succulent scrub, coastal sage scrub, and grasslands consistent with federal, state, and City guidelines. Any required mitigation for impacts on sensitive vegetation communities shall be outlined in a conceptual mitigation plan following the outline provided in the City Biology Guidelines.

**TABLE 8  
MITIGATION RATIOS FOR IMPACTS TO UPLAND VEGETATION COMMUNITIES  
AND LAND COVER TYPES**

Tier	Habitat Type	Mitigation Ratios			
TIER 1 (rare uplands)	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	Location of Preservation*			
				Inside	Outside
		Location of Impact*	Inside	2:1	3:1
			Outside	1:1	2:1
TIER II (uncommon uplands)	Coastal Sage Scrub (CSS) CSS/Chaparral	Location of Preservation*			
				Inside	Outside
		Location of Impact*	Inside	1:1	2:1
			Outside	1:1	1.5:1
TIER III A (common uplands)	Mixed Chaparral Chamise Chaparral	Location of Preservation			
				Inside	Outside
		Location of Impact*	Inside	2:1	3:1
			Outside	1:1	2:1
TIER III B (common uplands)	Non-Native Grasslands	Location of Preservation*			
				Inside	Outside
		Location of Impact*	Inside	1:1	1.5:1
			Outside	0.5:1	1:1

Notes:

\* Location is in relation to MHPA.

For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I (in Tier) or (2) occur outside of the MHPA within the affected habitat type (in-kind).

For impacts on Tier II, IIIA, and IIIB habitats, the mitigation could (1) occur within the MHPA portion of Tiers I-III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind). Project-specific mitigation will be subject to applicable mitigation ratios at the time of project submittal.

Mitigation for impacts on sensitive vegetation communities shall be implemented at the time future development projects are proposed. Project-level analysis shall determine whether the impacts are within or outside the MHPA. Any MHPA boundary adjustments shall be processed by the individual project applicants through the City and Wildlife Agencies during the early project planning stage.

Mitigation for impacts on sensitive upland habitats shall occur in accordance with the MSCP mitigation ratios as specified within the City's Biology Guidelines (City of San Diego 2012). These mitigation ratios are based on the tier level of the vegetation community, the location of the impact, and the location of the mitigation site(s). For



example, impacts on lands inside the MHPA and mitigated outside the MHPA would have the highest mitigation ratio, whereas impacts on lands outside the MHPA and mitigated inside the MHPA would have the lowest mitigation ratio.

#### Mitigation for Impacts to Wetlands

Please refer to Section 7.4 below.

## **7.2 Sensitive Plant Species Mitigation**

Prior to issuance of any discretionary permit for a future development project implemented in accordance with the CPUs, all projects which could have a potentially significant impact resulting in a reduction in the number of unique, rare, endangered, or sensitive species of plants, shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012) and MSCP Subarea Plan. Where sensitive biological resources are known or suspected on or adjacent to a proposed project site, a biological assessment shall be performed for that project. Based on available habitat within the CPU areas, focused presence/absence surveys shall be conducted in accordance with the Biology Guidelines and applicable resource agency survey protocols. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the FESA, CESA, MSCP Subarea Plan, and ESL Regulations.

## **7.3 Sensitive Wildlife Species Mitigation**

Prior to issuance of any discretionary permit for a future development project implemented in accordance with the CPUs, all projects which could have a potentially significant impact resulting in a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of animals, shall be analyzed in accordance with the CEQA Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City of San Diego Biology Guidelines (2012) and MSCP Subarea Plan. Where sensitive biological resources are known or suspected on or adjacent to a proposed project site, a biological assessment shall be performed for that project. Based on available habitat within the CPU areas, focused presence/absence surveys shall be conducted in accordance with the Biology Guidelines and applicable resource agency survey protocols. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the FESA, MBTA, CESA, MSCP Subarea Plan, and ESL Regulations.

#### Mitigation for Short-term Impacts on Sensitive Species from Project Construction

Within the Encanto Neighborhoods CPU area, for proposed development adjacent to or within the MHPA, construction noise that exceeds the maximum levels allowed shall be avoided during the breeding seasons for protected avian species such as: coastal California gnatcatcher (March 1-August 15); least Bell's vireo (March 15-September 15); and coastal cactus wren (February 15-August 15). If construction is proposed during the breeding season for these species, USFWS protocol surveys shall be required in order to determine species presence/absence. When applicable, adequate noise reduction measures shall be incorporated.

#### Mitigation for Impacts on Migratory Wildlife

Mitigation for future projects to reduce potentially significant impacts that would interfere with the nesting, foraging, or movement of wildlife species within the CPU areas shall be identified in site-specific biological resources report prepared in accordance with City of San Diego Biology Guidelines during the discretionary review process. The biology report shall include results of protocol surveys and recommendations for additional measures to be implemented during construction-related activities; shall identify the limits of any identified local-scale wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor.

Measures that shall be incorporated into project-level construction documents to minimize direct impacts on wildlife movement, nesting, or foraging activities shall be addressed in the biology report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species-specific mitigation plans in order to comply with the FESA, MBTA, State Fish and Game Code, and/or the ESL Regulations.

## **7.4 Jurisdictional Waters/Wetlands Mitigation**

To reduce potential direct impacts on City, state, and federally regulated wetlands, all subsequent projects developed in accordance with the CPUs shall be required to comply with ACOE CWA Section 404 requirements and special conditions, CDFW Section 1602 Streambed Alteration Agreement requirements and special conditions, and the City of San Diego ESL Regulations for minimizing impacts on wetlands. Achieving consistency with these regulations for impacts on wetlands and special aquatic sites would reduce potential impacts on regulated wetlands and provide compensatory mitigation (as required) to ensure no net-loss of wetland habitats. In addition, if federal listed species are present on a project site, the USFWS would be included in the consultation initiated by the ACOE during the Section 404 permit process in accordance with Section 7 of the



FESA. If there is no federal nexus to jurisdictional waters, then a Section 10(A) authorization from USFWS would be required to cover any potential effects on federal listed species.

Prior to obtaining discretionary permits for future actions implemented in accordance with the CPUs that are subject to ESL, and/or where the CEQA review has determined that there may be a significant impact on other biological resources considered under CEQA, a site-specific biological resources survey shall be completed in accordance with City of San Diego Biology Guidelines. In addition, a preliminary or final jurisdictional waters/wetlands delineation of the project site shall be completed following the methods outlined in the ACOE's 1987 *Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region* and any required updated or additional standards. A determination of the presence/absence and boundaries of any waters of the U.S. and waters of the State shall also be completed following the appropriate ACOE guidance documents for determining OHWM boundaries. The limits of any riparian habitats on-site under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (excluding vernal pools) that may not meet federal jurisdictional criteria but are regulated by the RWQCB. Engineering design specifications based on project-level grading and site plans shall be incorporated into the project design to minimize direct impacts on wetlands, jurisdictional waters, riparian habitats, and vernal pools consistent with federal, state, and City guidelines. Any required mitigation for proposed impacts shall be outlined in a conceptual wetland mitigation plan prepared in accordance with the City's Biology Guidelines (2012).

Additionally, any impacts to wetlands in the City of San Diego would require a deviation from the ESL wetland regulations. Under the wetland deviation process, development proposals that have wetland impacts may be considered only pursuant to one of three options: Essential Public Project, Economic Viability Option, or Biologically Superior Option. ESL Regulations require that impacts to wetlands be avoided. Unavoidable impacts to wetlands should be minimized to the maximum extent practicable and mitigated as follows:

- As part of the project-specific environmental review pursuant to CEQA, all unavoidable wetland impacts will need to be analyzed, and mitigation will be required in accordance with ratios shown in Tables 9a and 9b. Mitigation should be based on the impacted type of wetland and project design. Mitigation should prevent any net loss of wetland functions and values of the impacted wetland.
- For the Biologically Superior Option, the project and proposed mitigation shall include avoidance, minimization, and compensatory measures, which would result in a biologically superior net gain in overall function and values of (a) the type of wetland resource being impacted, and/or (b) the biological resources to be conserved. The Biologically Superior Option mitigation shall include either

(1) standard mitigation per Table 9a, including wetland creation or restoration of the same type of wetland resource that is being impacted that results in high quality wetlands; and a biologically superior project design whose avoided area(s) (i) is in a configuration or alignment that optimizes the potential long-term biological viability of the on-site sensitive biological resources, and/or (ii) conserves the rarest and highest quality on-site biological resources; or (2) for a project not considered consistent with “1” above, extraordinary mitigation per Table 9b is required.

**TABLE 9a**  
**CITY OF SAN DIEGO WETLAND MITIGATION RATIOS**  
**(with Biologically Superior Design)**

Vegetation Community	Mitigation Ratio
Riparian	2:1 to 3:1
Vernal pool*	2:1 to 4:1
Basin with fairy shrimp*	2:1 to 4:1
Freshwater marsh	2:1

\*The City currently does not have “take” authority for vernal pool species. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have “take” authority for the vernal pool species occurring within the vernal pool HCP areas.

**TABLE 9b**  
**CITY OF SAN DIEGO WETLAND MITIGATION RATIOS**  
**(without Biologically Superior Design Outside the Coastal Zone)**

Vegetation Community	Mitigation Ratio
Riparian	4:1 to 6:1
Vernal pool*	4:1 to 8:1
Basin with fairy shrimp*	4:1 to 8:1
Freshwater marsh	4:1

\*The City currently does not have “take” authority for vernal pool species. A draft vernal pool HCP is currently being prepared by the City in coordination with the Wildlife Agencies. If adopted, the City would have “take” authority for the vernal pool species occurring within the vernal pool HCP areas.

As part of any future project-specific environmental review pursuant to CEQA, all unavoidable wetlands impacts (both temporary and permanent) shall be analyzed and mitigation required in accordance with the City Biology Guidelines; mitigation shall be based on the impacted type of wetland habitat. Mitigation shall prevent any net loss of wetland functions and values of the impacted wetland. Operational definitions of the four types of activities that constitute wetland mitigation under the ESL Regulations are as follows:

- **Wetland creation** is an activity that results in the formation of new wetlands in an upland area. An example is excavation of uplands adjacent to existing wetlands and the establishment of native wetland vegetation.



- **Wetland restoration** is an activity that re-establishes the habitat functions of a former wetland. An example is the excavation of agricultural fill from historic wetlands and the re-establishment of native wetland vegetation.
- **Wetland enhancement** is an activity that improves the self-sustaining habitat functions of an existing wetland. An example is removal of exotic species from existing riparian habitat.
- **Wetland acquisition** may be considered in combination with any of the three mitigation activities above.

Wetland enhancement and wetland acquisition focus on the preservation or the improvement of existing wetland habitat and function and do not result in an increase in wetland area; therefore, a net loss of wetland may result. As such, acquisition and/or enhancement of existing wetlands may be considered as partial mitigation only for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio.

For permanent wetland impacts that are unavoidable and minimized to the maximum extent feasible, mitigation must consist of creation of new in-kind habitat to the fullest extent possible and at the appropriate ratios. If on-site mitigation is not feasible, then at least a portion of the mitigation must occur in the same watershed. The City's Biology Guidelines and MSCP Subarea Plan require that impacts on wetlands, including vernal pools, shall be avoided, and that a sufficient wetland buffer shall be maintained, as appropriate, to protect resource functions/values. The City biology report shall include an analysis of on-site wetlands (including City, state, and federal jurisdiction analysis) and, if present, include project alternatives that fully/substantially avoid wetland impacts. Detailed evidence supporting why there is no feasible, less environmentally damaging location or alternative to avoid any impacts must be provided for City staff review, as well as a mitigation plan that specifically identifies how the project is to compensate for any unavoidable impacts. A conceptual mitigation program (which includes identification of the mitigation site) must be approved by City staff prior to the release of the draft environmental document. Avoidance is the first requirement; mitigation can only be used for impacts clearly demonstrated to be unavoidable.

Prior to the commencement of any construction-related activities on-site for projects impacting wetland habitat (including earthwork and fencing), the applicant shall provide evidence of the following to the Mayor-appointed Environmental Designee prior to any construction activity:

- Compliance with ACOE Section 404 nationwide permit;

- Compliance with the RWQCB Section 401 Water Quality Certification; and
- Compliance with the CDFW Section 1601/1603 Streambed Alteration Agreement.

#### **7.4.1 Vernal Pools and Vernal Pool Species**

No impacts are anticipated to occur to vernal pools or vernal pool species located within City-owned open space; therefore, no mitigation is required.

### **7.5 Wildlife Movement Corridors Mitigation**

No substantial impacts to regional or local wildlife movement corridors are anticipated to result from implementation of the CPUs. Therefore, no mitigation measures specific to wildlife movement corridor impacts are recommended.

### **7.6 Multiple Species Conservation Program/ Multi-Habitat Planning Area Mitigation**

As discussed in Section 6.6, subsequent projects implemented in accordance with the CPUs could result in indirect impacts on the MHPA and introduce land uses adjacent to MHPA within the Encanto Neighborhoods CPU area. The Mitigation Framework provided in Section 7.6.1 below shall be implemented at the project level to reduce the potential indirect impacts to adjacent MHPA. 7.6.1 MHPA Land Use Adjacency Guidelines Compliance

MHPA adjacency impacts would be addressed at the project-level. To ensure avoidance or reduction of potential MHPA impacts resulting from new development within or adjacent to the MHPA, the following Mitigation Framework measures shall be required for all future projects as part of the subsequent environmental review and development permit processing:

All subsequent development projects implemented in accordance with the CPUs that are within or adjacent to designated MHPA areas shall comply with the Land Use Adjacency Guidelines of the MSCP (Section 1.4.3; 1997) in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Mitigation measures include, but are not limited to: sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA, and berms or walls adjacent to commercial or industrial areas and any other use that may introduce construction noise or noise from future development that could impact or interfere with wildlife utilization of the MHPA. The project biologist for each proposed project would



identify specific mitigation measures needed to reduce impacts to below a level of significance. Subsequent environmental review would be required to determine the significance of impacts from land use adjacency and compliance with the Land Use Adjacency Guidelines of the MSCP. Prior to approval of any subsequent development project in an area adjacent to a designated MHPA, the City of San Diego shall identify specific conditions of approval in order to avoid or to reduce potential impacts to adjacent MHPA. Specific requirements shall include:

- Drainage – All new and proposed parking lots and developed areas in and adjacent to the MHPA shall be designed so they do not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials prior to release by incorporating the use of filtration devices, planted swales and/or planted detention/desiltation basins, or other approved permanent methods that are designed to minimize negative impacts, such as excessive water and toxins into the ecosystems of the MHPA.
- Toxics/Project Staging Areas/Equipment Storage – Projects that use chemicals or generate by-products such as pesticides, herbicides, and animal waste, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. Provide a note in/on the CD's that states: "All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the MHPA."
- Lighting – Lighting within or adjacent to the MHPA shall be directed away/shielded from the MHPA and be subject to City Outdoor Lighting Regulations per LDC Section 142.0740.D. Overhead lighting shall be shielded and either have a fixed downward-aiming position or have a locking feature to fix the light in the downward position. Additionally, overhead lighting adjacent to the MHPA shall be placed on a timer to turn off from 11 pm to sunrise unless determined by the City of San Diego that overhead lighting is necessary for public safety.
- Barriers – New development within or adjacent to the MHPA shall be required to provide barriers (e.g., non-invasive vegetation; rocks/boulders; 6-foot high, vinyl-coated chain link or equivalent fences/walls; and/or signage) along the MHPA boundaries to direct public access to appropriate locations, reduce domestic animal predation, protect wildlife in the preserve, and provide adequate noise reduction where needed.

- Invasives – No invasive non-native plant species shall be introduced into areas within or adjacent to the MHPA.
- Brush Management – New development adjacent to the MHPA shall be set back from the MHPA to provide required Brush Management Zone 1 area on the building pad outside of the MHPA. Zone 2 may be located within the MHPA provided the Zone 2 management will be the responsibility of an HOA or other private entity except where narrow wildlife corridors require it to be located outside of the MHPA. Brush management zones will not be greater in size than currently required by the City's regulations, the amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done and vegetation clearing shall be prohibited within native coastal sage scrub and chaparral habitats from March 1 - August 15 except where the City ADD/MMC has documented the thinning would be consist with the City's MSCP Subarea Plan. Existing and approved projects are subject to current requirements of Municipal Code Section 142.0412.
- Noise - New development adjacent to the MHPA must follow the Mitigation Framework for impacts to Biological Resources (uplands, wetlands, sensitive species, etc.) and Mitigation for Short-term Impacts on Sensitive Species from Project Construction.

## **7.7 Local Policies, Ordinances, and Adopted Plans Compliance**

The following measures include relevant development standards from the MSCP Subarea Plan's Construction and Maintenance Policies (Section 1.4.2; 1997), which shall be implemented by future projects at the time of future development permit processing:

1. All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.
2. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP-covered species, and wetlands. If avoidance is infeasible, mitigation will be required.
3. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All



such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.

4. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.
5. Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.
6. Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully-functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.
7. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.
8. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5 [of the MSCP Subarea Plan].

Relevant development standards from the MSCP Subarea Plan's Fencing, Lighting, and Signage Policies (1997) are as follows:

- a. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible

with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).

- b. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.

## 7.8 Cumulative Impacts Mitigation

Future projects implemented in accordance with the CPUs would be required to implement the Mitigation Framework identified above, which requires site-specific environmental review, analysis of potential impacts to biological resources, and recommendations for mitigation to reduce significant project-level biological resource impacts to below a level of significance. Although each individual future project may contribute to incremental biological resource impacts, compliance with adopted CPU policies, the MSCP Subarea Plan, ESL Regulations, and the Biology Guidelines, and strict adherence to the Mitigation Framework would ensure that impacts from future development would not be cumulatively significant. Therefore, no mitigation is required beyond what is provided in the Mitigation Framework described above in Sections 7.1 through 7.7.

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